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NATO Defense College
Collège de Défense de l'OTAN

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Edited by
Sven G. Holtsmark and
Brooke A. Smith-Windsor

Research Division • Rome, May 2009

NATO DEFENSE COLLEGE
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FORWORD

The present volume contains selected papers from the Academic Roundtable "Security Prospects in the High North: Geostrategic Thaw or Freeze?" organised in Reykjavik by the NATO Defense College (NDC) with the support of the University of Iceland on 30 January 2009. The Roundtable gathered participants from a number of NATO and Partner countries to address the security implications of changes underway in the Arctic in this, NATO's 60th Anniversary year. The Roundtable was linked to a NATO Seminar of officials and invited specialists to address the same topic.

The authors were expected to raise important questions rather than to supply easy answers about the evolving security environment of the High North and NATO's role within it. They were encouraged to cast a critical eye over the facts and processes at hand rather than draw hasty conclusions if these were not clearly supported by solid empirical evidence. As a consequence, some of the contributions explicitly question widespread but not always well-founded images of recent Arctic developments related to legal and economic issues as well as security. Regarding the prospects for continued regional and international cooperation in the Arctic, the underlying message is one of guarded optimism rather than alarmism, warranting a deliberate yet measured NATO response.

There was broad consensus both at the official Seminar and the Academic Roundtable about some key elements that must be in place if the Arctic is to remain a region of peace and prosperity. One of them is the continued unequivocal support for international law, most importantly by the Arctic states themselves, but also by outside actors, as the only possible framework for resolution of remaining jurisdictional disputes. Another is the understanding by all interested parties, including international organisations like NATO, that Arctic policies should as far as possible be transparent and inclusive. A reinvigorated role for the Alliance in the Arctic can only be envisaged in close cooperation with civil authorities and

NATO's Partner nations. In this respect, Russia's role as a pre-eminent Arctic power deserves special recognition.

The contributions to the volume have been selected on the basis of merit, relevance and with a view to the coherence of the volume. All the views expressed, including those by the editors in the Introduction, are those of the authors only, and should not be attributed to NATO, the NDC or any of the institutions or governments represented by the contributors.

Rome, 27 March 2009

Dr. Karl-Heinz Kamp
Director, NDC Research Division

INTRODUCTION

Sven G. Holtsmark and Brooke A. Smith-Windsor*

Security Prospects in the High North. Geostrategic Thaw or Freeze? is a collection of essays on some of the issues that in the years and decades ahead will be instrumental in defining the Arctic security environment. It comes on the occasion of the 60th Anniversary of the North Atlantic Treaty Organization (NATO) as the Alliance takes stock of the prevailing and projected security environment and its role within it, including in the High North. At the time of writing, a new Declaration on Alliance Security is in the offing, and a new Strategic Concept perhaps not too far off. So this volume may be considered a contribution to a much wider debate about NATO's purpose as a political-military security organization in the early 21st Century.

The term "security" as used in this volume, however, clearly goes beyond traditional military security with its focus on issues of state sovereignty and interests. "Security" in the contemporary sense is ultimately about maintaining the preconditions for human prosperity and development, and "security challenges" correspondingly are developments or actions that threaten to undermine these preconditions in the shorter and longer term. "Hard military security", as demonstrated by some of the papers in this collection, will for the foreseeable future retain its importance and visible role in the High North. However, it soon becomes evident that some of the most pressing challenges facing the region – from the need to protect the fragile Arctic environment to the possibility of terror-

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ist activity – have less to do with traditional approaches to the defence of state sovereignty than with addressing with a variety of instruments, challenges that transcend state borders.

Within this general framework the essays that follow address two broad sets of questions. The first set relates to the background, nature and the implications of High North *challenges*. Among the key words in this respect are climate change and its implications for off-shore petroleum extraction and the opening of new Arctic Sea Lines of Communication (SLOCs). The other set of questions is about the major actors' *response*, individually as states or through international organisations like NATO, the United Nations (UN) and its subordinated organizations, and the European Union (EU). Here the focus turns to the roles of regimes and institutions, but also to the steps individual states take to handle what they perceive as fundamental national security interests. The essays discuss the role of multilateral legal regimes like the United Nations Convention on the Law of the Sea (UNCLOS), regional political institutions like the Arctic Council, but also still unresolved bilateral issues of delimitation and jurisdiction. As will become clear from the essays, fundamentally the Arctic policy axis may be said to revolve around the management of two interrelated issues: the management of perceptions of the threats and opportunities that lay within the region, and the management of relationships among the plethora of local, state, regional and multilateral stakeholders. In the NATO perspective, this pertains to the management of relationships among Allies themselves, but even more importantly to relations with outside actors.

This volume does not pretend to include a comprehensive review of Arctic security challenges. In particular, readers may notice that there is no paper specifically devoted to the United States' Arctic policy. This is due to the simple fact that the essays were commissioned and written before the publication of the January 2009 US Arctic Region strategy paper. This meant that an in-depth American discussion of US policies might have risked being quickly overtaken by events. Readers will also notice the absence among the authors of a representative of the Russian Federation, for similar reasons. The Russian government approved and

updated its Arctic policy strategy document in September 2008, i.e. after this volume was originally commissioned, and it was only made public on the very eve of this volume's publication. Although the editors and the individual authors all recognise the crucial role of the United States and Russia for Arctic stability and prosperity, the views expressed in this collection are largely the interpretations of European and Canadian scholars and specialists. With two new Arctic policies now in hand, ongoing and future research projects in the field should make it a primary aim to include US and Russian specialists whenever possible and appropriate. To partly compensate for this deficiency within the current collection, the Introduction contains a brief summary of some of the main elements of the US document. It also contains some reflections on aspects of Russian policy in continuation of the discussion of Russian High North security issues contained in this volume. Finally, the editors have included a brief discussion of recent EU policy statements regarding the Arctic.

The structure of this introductory chapter is as follows: a brief, though far from comprehensive, discussion of terminology and definitions will clarify important geographical terms but also serve as a reminder of the different ways the choice of terminology is part of the policy process itself and may also both reflect and contribute to the shaping of important perceptions and the relationships that need to be managed. This will be followed by an overview of the changing security situation in the Arctic since the end of the Cold War. Thereafter follows a presentation of some of the major factors which are behind the recent growing focus on Arctic security: climate change and the related prospects for access to off-shore petroleum fields and other resources, and the possibility of new trans-Arctic shipping routes. This is followed by a brief introduction to the individual papers and the editors' summaries of the policies of the US and EU, the latter constituting an emerging multilateral actor in the region The introduction concludes with some tentative reflections on possible NATO roles and approaches in the High North.

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It is well known that the word "Arctic" comes from the Greek

"arktikos" and "artktos" referring to the northern constellation of Ursa Major or the "Great Bear". It is also generally taken for granted that the Arctic refers to a region in proximity to the Earth's northerly pole. Beyond that, however, terms and definitions to describe the region abound.

The references used to describe the Arctic will to a large extent determine what is involved—the perceived threats and opportunities in a given geographic space—as well as who is involved—the political actors charged to deal with them. For NATO, it will influence where the Alliance will be engaged in addressing security concerns in the northern reaches of the world in the early 21st Century as well as the tables at which it might wish to sit down and with whom.

The following are only some of the more obvious definitional questions to bear in mind in contemporary discussions of "Arctic" security issues:[1]

- Which are the Arctic states? Only the five so-called "Arctic Rim" states bordering the Arctic Ocean (Russian Federation, United States, Canada, Denmark [Greenland] and Norway)? Or the eight circumpolar states of the Arctic Council with territory bordering or above the Arctic Circle (Arctic Rim plus Iceland, and Finland and Sweden when by extension the European Union becomes a significant stakeholder)?

- Moreover, what is the geographic scope of the oft used term "High North"? The so-called "European Arctic", the term originally coined by the Norwegians? Or all territory and waters north of the 60th parallel, as others would have it?

The choice of an appropriate term and the definition of their content (or lack thereof) is much more than a scholastic exercise devoid of

[1] For a more detailed discussion of various definitions, see Alf Håkon Hoel's contribution in this volume.

real-world significance. Framing the discussion around, for instance, an amorphous reference to the "Arctic" or "High North" or "Circumpolar North", may in itself be a policy statement that signals political agendas, interests and priorities.

In other cases terminology as such may sometimes inadvertently shape perceptions and therefore political reality. One example will illustrate the point. As stated above, there is reason to believe that still unexplored "Arctic" off-shore petroleum fields may contain significant amounts of oil and gas. This has led numerous journalists and even some academic analysts to present the following simple line of argument from premises to conclusion: the "Arctic" includes huge areas which are still not clearly delineated among the littoral states; and there may be huge undiscovered petroleum reserves in the "Arctic". This leads to the apparent conclusion that in view of expected scarcity of energy, there is a significant potential for violent conflict. The argument, of course, builds on the unspoken assumption that the expected new petroleum resources are in disputed areas. This, as a matter of fact, is hardly the case. The real situation is the direct opposite—the major share of the predicted recoverable oil and gas resources lie well within the Arctic Ocean states' undisputed Exclusive Economic Zones (EEZs).[2] Thus, some of the most alarmist scenarios tend to evaporate with a closer look at the map and a concomitant clarification of terminology. In security terms, geography matters and so does the use of proper geographic terms. Future NATO discussions on Arctic security issues should, therefore, pay particular attention to terminology when developing policy approaches to the region.

Most of the issues presented in the essays that follow pertain to the open sea and the continental shelves to the north of the mainland of the five Arctic Ocean states: Russia, the United States, Canada, Denmark (Greenland), and Norway. However, discussions of regional security naturally must include the adjacent mainlands and islands. Thus, the terms High North and Arctic as used in this volume roughly denote all land and

[2] For more details, see Kristine Offerdal's contribution in this volume.

sea areas to the north of the Arctic Circle. Following this usage, Iceland, Finland and Sweden should be added to the list of Arctic states in addition to the five Arctic Rim states mentioned above. It must be emphasised, however, that no attempt has been made to impose on the authors a uniform use of terminology.

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The Cold War focus on the High North was mainly defined by two factors: the possibility of a nuclear exchange over the polar region, and by the crucial role of the Soviet Northern Fleet in the battle for control over the SLOCs between North America and Europe in an all-out European war.[3] As a reflection of this, the region was also important for intelligence collection and early warning, both for the United States and NATO and for the Soviet Union. Numerous radar stations and installations for signals intelligence were located in High North, from the United States, over Canada and Greenland to Norway and the Soviet Union. Security in a military sense was the dominating feature. The Western Arctic Ocean states – all of them NATO members – participated in a complex web of national, bilateral and multilateral defence arrangements. Regularly held military exercises often involved significant forces, among them units earmarked for High North service in case of war. The region was frozen, not only climatically, but politically as well.[4]

With the end of the Cold War, the High North rapidly receded into the background in Western thinking as an area of potential armed conflict. Despite the region's continued central role for strategic deterrence, early warning and missile defence, in other areas of military security the attention of the western major powers and NATO evaporated with the transformation of relations with Russia. The emergence of new "out-of-area" threats reinforced this trend, and so did the discussion and process of

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[3] For an in-depth discussion of the High North during the Cold War, see Rolf Tamnes, The United States and the Cold War in the High North, Oslo (Universitetsforlaget), 1991.

[4] Kjetil Skogrand, "The Arctic in a geo-strategic perspective", in Kjetil Skogrand (ed.), Emerging from the Frost. Security in the 21st Century Arctic, in the series Oslo Files on Defence and Security, 02/2008, Norwegian Institute for Defence Studies, p. 9.

NATO enlargement. One highly visible effect was the shift of the center of gravity of NATO's command and control structure from Northern Europe towards the Mediterranean. Another was the absence, since the late 1980s, of major US surface vessels in the Norwegian Sea. On the political side, the European part of the High North "emerged from the frost", and new patters of cooperation between Russia and its European neighbours contrasted dramatically with the image and reality of closed borders and strictly limited contacts during the Cold War.

However, with the advent of the new century there was growing attention towards the High North. It is symptomatic that all of the five countries bordering on the Arctic Ocean, the United States, Canada, Denmark/Greenland, Norway and Russia, have in the last few years issued authoritative Arctic policy strategy documents or statements.[5] These were followed by regional actors. The EU Commission presented a High North strategy document in November 2008,[6] and the Western Europea Union (WEU) Assembly received reports on High North security in June 2007 and November 2008.[7] In the case of Norway, the High North is at the top of the government's domestic and international policy agenda.[8] The recently released US Presidential Directive on Arctic region policy is the first such document since 1994.[9] The US intelligence community's *Global Trends 2025* includes a brief discussion on strategic implications of an "opening Arctic".[10]

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[5] The Danish document, "Arktis i en brydningstid. Forslag til strategi for aktiviteter i det arktiske område", was released in May 2008 and is available at www.um.dk. The Canadian government has not issued an integrated Arctic strategy document, but government officials have made numerous Arctic policy statements. The Inuits, through the Inuit Tapiriit Kanatami, in January 2008 presented the Canadian government with the draft of "An Integrated Arctic Strategy", available at www.itk.ca. The Russian government's Arctic strategy, approved on 18 September 2008, is available at http://www.scrf.gov.ru/documents/98.html.

[6] Commission of the European Communities: Communication from the Commission to the European Parliament and the Council. The European Union and the Arctic, COM (2008) 763.

[7] For the most recent of these reports, see "Europe's northern security dimension", report submitted to the WEU Assembly, 5 November 2008. The WEU Assembly discussed the report and approved its recommendations on 4 December 2008.

[8] Cf. the Ministry's website, www.mfa.no: "The High North will be Norway's most important strategic priority area in the years ahead."

[9] National Security Presidential Directive and Homeland Security Presidential Directive, Subject: Arctic Region Policy, released January 9, 2009. Available at www.whitehouse.gov.

[10] Global Trends 2025: A Transformed World, p. 53. Available at www.dni.gov.

Given Russia's strong position as an Arctic power, the increasing prominence of Arctic issues in Russian foreign and security policy rhetoric and in the Russian defence posture is of particular significance.[11] In recent years even distant countries like China, India, Japan and South Korea have demonstrated a clear interest in High North issues.

The growing focus on the High North is part of a complex set of discourses reflecting multiple domestic and international developments. However, there is widespread agreement that two closely interrelated "new" factors are major drivers behind the re-emerging focus on the High North: the prospect and effects of climate change and the potential significance of still-unexplored Arctic energy resources. As regards climate change, suffice it to say that according to the best available prognoses, reduced ice coverage in large parts of the Arctic Ocean combined with technological improvements may in the coming decades allow this region to become accessible as a focal point of economic activity to a degree never before experienced.[12] Climate change and the expectations of reduced ice coverage in the Arctic Ocean are also major factors behind the increasing focus on the High North as a future energy province of potentially global significance. Others are current and potential technological progress in off-shore petroleum extraction coupled with an expected long-term rise in the price of oil and gas. It has become customary to refer to the United States Geological Survey, which suggests that a high percentage of the World's undiscovered reserves of oil and gas may be located in the High North. Indeed, the agency's most recent survey of July 2008, estimates that petroleum reserves in areas north of the Arctic Circle could amount to 13 percent of the world's total undiscovered oil and about 30 percent of the undiscovered natural gas. Arctic fields already under exploration contain around 10 percent of the world's known petroleum

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[11] See Katarzyna Zyśk's contribution in this volume.

[12] See "Arctic Climate Impact Assessment", available at www.acia.uaf.edu. For a good introduction to the implications of climate change, including three scenarios, see *Arctic Shipping 2030: From Russia with Oil, Stormy Passage, or Arctic Great Game?*, published as Econ Report 2007-070, available at www.econ.no.

resources.[13] Increased energy extraction may be expected to add to the emerging interest in new shipping routes between Asia and Europe – the Northwest Passage, the Northern Sea Route along Sibir's shores or new SLOCs directly across the Polar basin. Of these, up until now parts of the Northern Sea Route have already been in use, mostly for domestic shipping in Russia. Already today areas of the North Atlantic bordering on the Arctic Ocean are witnessing a sharp increase in shipping due to the transport of oil and gas from Norway and Russia.

However, great caution is required in drawing policy implications from these numbers. First, due to the limitations in geological data for most of the area, the USGS report is partly based on a complex "geology-based probabilistic methodology", i.e. the numbers are not the result of comprehensive geological surveys of the areas involved. Second, although more than 80 percent of the undiscovered resources are expected to be off-shore, some of the most promising fields are within the littoral states' EEZs, (i.e. non-disputed areas of the Arctic Ocean). Third, there are huge uncertainties about when, or if at all, potential new or even some of the already-identified off-shore petroleum fields will actually be exploited, notably those under present or possible future Russian jurisdiction. A consistently high petroleum price is only one of many necessary preconditions. However, these and other uncertainties cannot be expected to make the Arctic states refrain from taking steps to secure their long-term economic interests in the area. Moreover, the pre-eminent interest oil and gas does not diminish the continued importance of fishing in the Arctic Ocean and adjacent waters. At present, approximately ten per cent of the world's catch of white fish is harvested in the Arctic.

The essays in this volume are organised in order, from the general to the particular, and from focus on state-centred regimes and institutions to the petroleum and shipping industry perspective. The first essay, by Alyson J.K. Bailes, gives a broad overview of Arctic region governance

[13] U.S. Geological Survey: *Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle*, published in July 2008.

structure. The two final papers, by Kristine Offerdal and Frédéric Lasserre, discuss in some detail the prospects for the development of Arctic offshore petroleum fields and new Arctic Sea Lines of Communication. In between are discussions of bilateral as versus multilateral approaches to disputes resolution, an overview of the status and application of the stipulations of the Law of the Sea, an analysis of the military security side of Russian High North policies, followed by a discussion of the ambiguous attitudes of the United Kingdom as a non-Arctic power with historical interests in the region.

Alyson J.K. Bailes, in her essay "Options for closer cooperation in the High North – what is needed", explores the preconditions for the establishment of governance structures characterised by "win-win cooperation and on respect for planned, transparent, at least partly regulated frameworks of action by state and non-state actors alike." She argues that solutions to the Arctic's governance challenges must be *multi-functional*, *multi-institutional*, and *cross-sectoral*. Within the field of security, Bailes makes the case for a comprehensive approach, based on the premise that the term "security" in the Arctic context has dimensions far beyond those of military security. In her concluding discussions of possible roles for NATO she makes the case for a renewed emphasis on elements of "restraint" to supplement and balance the Alliance's continued role in upholding the member states' "hard" national security needs. As part of this, she points to the possibility of extending existing patterns of cooperation (notably by giving additional content to Nordic cooperation or extending this model to other areas) and developing new ones by involving state actors like Russia or China or the entire spectrum of relevant non-state actors.

Samantha L. Arnold and *Stéphane Roussel*'s text "Expanding the Canada-US security regime to the North?" addresses the issue of bilateralism versus multilateralism as strategies for solving remaining legal disputes. Although the paper focuses on the disagreement between the United States and (not only) Canada about the legal status of parts of the Northwest Passage, the analysis in Arnold and Roussel's paper have wider

implications. In the case of this specific disagreement, there may be certain unavoidable limits to bilateralism. As a minimum, it seems, any bilateral US-Canadian arrangement would elicit the active interest and engagement of other stakeholders in the High North – and there could be many of them – which could in fact turn what may start as bilateralism into a multilateral regime. Moreover, a bilateral solution to international legal disputes may have repercussions on related issues in other geographical areas. The most obvious case in point is the closely related disagreement over some stretches of the Northeast Passage to the north of the Siberian coast – one of many issues to be resolved before the Northern Sea Route becomes even potentially viable as a waterway open to international traffic.

Alf Håkon Hoel's discussion of "The High North Legal-Political Regime" provides crucial background to a range of Arctic issues and challenges, including those covered by the contributions in this collection. As Hoel convincingly argues, the institutional and governance architecture of the Arctic oceans is a legal and political order dominated by state sovereignty and jurisdiction, embedded in a number of international agreements with the 1982 United Nations Law of the Sea Convention (UNCLOS) as its cornerstone. By asking the question "who can decide what where?", Hoel explains the legal rules and mechanisms behind the resolution of remaining delimitational issues in the Arctic Ocean, including the right to exploit resources on the seabed and below beyond the 200 nautical miles Exclusive Economic Zones (EEZ). The paper effectively refutes the often-heard statements about the alleged absence of adequate legal regimes in the High North, and by implication counters the call for a separate comprehensive treaty for the Arctic along the lines of the 1959 Antarctic Treaty or the 1983 Protocol on Environmental Protection to the Antarctic Treaty (the 'Madrid Protocol') which has established the continent as a protected area free from human exploitation in perpetuity. Hoel concludes his paper with some observations on potential implications of climate change for the governance of the Arctic Ocean and adjoining seas.

It was mentioned above that there is no representative of the Russian Federation among the authors of the essays in this collection.

However, *Katarzyna Zyśk*'s contribution on "Russia and the High North: Security and Defence Perspectives" addresses aspects of Russian High North policies which in recent years have attracted increasing attention – the sometimes heavy-handed and seemingly zero-sum based Russian approach to military security in the region, including the tendency to interpret a wide range of even civilian Western initiatives and activities within a military security framework. These are issues that give legitimate reason for concern and merit close analysis, in order, among other things, to elaborate Western responses that will serve to defuse rather than add fuel to Russian alarmist attitudes.

However, Katarzyna Zyśk herself emphasises that there is another and complementary side to Russia's policy in the High North, and that side gives priority to multilateralism and the rule of international law. And as far as relations with High North international institutions and regimes are concerned, this pragmatic attitude *is* Russian High North policy. As a matter of fact, the need to build on multilateralism and international law is emphasised in the new Russian Arctic strategy document which was adopted in September 2008.[14] Prominent examples of this "other side" of Russia's High North policy are Russian policy in the Arctic Council and the Barents Euro-Arctic Council, and Russia's early ratification and adherence to the United Nations Convention on the Law of the Sea. Another is Russia's full support for the Ilulissat declaration of May 2008.

The danger is, of course, that the continuation or even strengthening of the tough security rhetoric and behaviour referred to in Zyśk's paper, may in the long run undermine the credibility of the other, more inviting face, of Russia's policy in the North. However, it needs to be remembered that alarmist or even phobic attitudes come to the fore not only on the Russian side. For instance, in the West far too much is sometimes being made of rather symbolic Russian military gestures, like the renewed strate-

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[14] *Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike na period do 2020 goda i dalneishuiu perspektivu*, President of the Russian Federation D. Medvedev, Pr-1969, 18 September 2008. The document was published in late March 2009 and is available at the website of the Security Council of the Russian Federation, http://www.scrf.gov.ru/documents/98.html.

gic bomber flights into the Norwegian Sea and North Atlantic. Similarly, western media and even some politicians grossly overreacted to the August 2007 Russian flag planting on the North Pole sea bed. It went largely unnoticed that the Russian government never claimed that this act had any legal implications whatsoever. If these and other Russian actions are perceived as provocations, it should be remembered, that provocations only work if someone is willing to being provoked.

More than anything else, Katarzyna Zyśk's analysis confirms the crucial role of Russia in everything related to the High North. Continued and even expanded cooperation involving Russia, over the widest possible range of issues, is the *sine qua non* for peace and prosperity in the Arctic. Managing relations with Russia will be both the key to – and the measure of – success or failure in securing continued prosperity and stability in the High North. Therefore, full use should be made of hard-won lessons from the era of strategic confrontation during the Cold War and from the ups and downs of managing relations with Russia since the 1990s.[15] This will require the skilful calibration of political and military means to reach a defined set of fundamental aims. Western policy makers must demonstrate the ability and will to take Russian foreign and security interests into account as the Russians themselves perceive them, without necessarily accepting them at face value. Moreover, the West and NATO should be unanimous in their resolve to engage Russia in constructive cooperation over the broadest spectrum of security-related issues. Zyśk concludes her paper by suggesting some arenas for NATO-Russia cooperation in the High North in the military field, and also gives some telling examples of the need to be fully aware of the potentially important signalling effect of exercise scenarios.

The analysis of Russian military-strategic visions of the High North is followed by *Clive Archer*'s discussion of the United Kingdom's far more reserved interest in the area. Archer's analysis, in "Security prospects

[15] For a critical appraisal of Western policies towards Russia since the 1990s, see Richard Sakwa, "'New Cold War' or twenty years' crisis? Russia and international politics", International Affairs, Vol. 84, No. 2 (2008), pp. 241-267. See also Julianne Smith, op.cit., and Andrew Monaghan, op.cit.

in the High North and the United Kingdom", of the evolution of British attitudes towards the High North, confirms that outside the group of the Arctic states themselves, even Allied powers with a traditional interest in the area are far from jumping to speedy conclusions about the alleged new High North security challenges. According to Archer, the UK is likely to be sceptical towards an enhanced NATO presence in the region, except in the case of exercises open to NATO partners as well as members. In view of this, it seems somewhat paradoxical that the 2008 British National Security Strategy's brief mentioning of the Arctic seems to reflect media-shaped rather than more solidly founded interpretations of ongoing developments. According to the Strategy, an alleged competition for access to petroleum fields may "challenge existing norms of international law" and by implication give rise to conflict. How strong is the evidence for this? Of course, there will always remain the possibility that states opt for confrontation rather than cooperation. So far, however, the fact of the matter is that all interested states have made it clear that they have no intention of challenging the existing legal regime. The reason for this is obvious – it would hardly serve their economic interests to return to heightened political and military tension in the High North.

Two developments in particular are often presented as potential drivers for future conflict in the Arctic. These are predictions of increased interest in petroleum extraction from Arctic off-shore fields, and the opening of new Arctic SLOCs. The last two contributions in the collection, by *Kristine Offerdal* and *Frédéric Lasserre*, make the case for a closer look at the realities behind these predictions, including from an industry perspective. Offerdal, in her paper titled "High North Energy: Myths and Realities" argues that there is a discrepancy between political rhetoric and public debate on the one side and commercial evaluations of the viability of the Arctic as an energy region on the other side. Industry interest in parts of the Arctic is slightly on the increase, but it is fragile rather than robust, and one should not take for granted that activity in off-shore areas will surge in the near future. Much will depend on factors such as the oil price, political framework conditions, technological developments, global demand and developments in other energy regions. Thus,

Offerdal's paper provides "a reality check" with reference to the current political debate about the Arctic as an oil and gas region of increasing importance.

Offerdal also asks the question if the Arctic as such should be treated as one energy region, or whether it makes more sense to talk about various prospective sub-regions of the Arctic and how and when these may be expected to contribute to global energy security. Here as elsewhere, the application of terms that are too wide may give an impression of unity even in cases when a more differentiating approach could bring the analysis closer to reality. Finally, Offerdal's paper adds a sobering note to expectations that the development of new Arctic petroleum fields will provide importing countries with increased diversification of supply. If diversification means diversification by country, this may turn out to be the case only to a limited degree. The reason is simply that the major part of the petroleum resources is expected to be under undisputed Russian control. The reality may be diversification by regions rather than by producing states.

Frédéric Lasserre, in "High North Shipping: Myths and Realities", presents a similar reality check regarding the prospects for a new shipping bonanza in the High North, first by pointing to a number of nature-given factors that makes it less than obvious that new Arctic SLOCs in the foreseeable future have the potential of competing with already established shipping routes. For instance, although ice coverage may recede, remaining drifting ice, in combination with a still limited sailing season, represents just one of many substantial technological, economic and environmental challenges. Under certain circumstances climate change may actual lead to more difficult ice conditions in waters that even today are ice-free in the summer. Lasserre convincingly argues that, similarly to the case of petroleum, the shipping industry itself has more sober expectations of the value of new Arctic SLOCs than media coverage and parts of the non-industry based analytical literature would suggest. Moreover, Lasserre points to important differences in expectations between branches of the industry (container versus bulk, etc.), and also to the implications of unequal effects of climate change in the three prospective passages – the

Northwest Passage, the Northeast Passage and directly across the Polar Basin.

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Regarding the United States' High North policy, the National Security Presidential Directive and Homeland Security Presidential Directive of 9 January 2009 on "Arctic Region Policy" provides both a catalogue of the issues involved and an idea of US priorities. As a whole and as could be expected, the Directive is more precise in its identification of issues and challenges than in suggesting clear plans for action. It does, however, bear witness to an increasing awareness towards Arctic issues compared with the period since the end of the Cold War. Of obvious significance is the document's emphasis on international cooperation and multilateral solutions over a wide range of issues. Equally important is the underlying message in the document that some of the most pressing challenges in the High North are closely intertwined and therefore need to be addressed through the involvement of a wide range of actors, institutions and instruments.

Like most other analyses of Arctic affairs, the Directive notes the "effects of climate change and increasing human activity in the Arctic region" and the "growing awareness that the Arctic region is both fragile and rich in resources". This is coupled with the need to take account of "[a]ltered national policies on homeland security and defence". The introductory list of key background elements also mentions the "establishment and ongoing work of the Arctic Council". This is noteworthy in view of the at times rather lukewarm US support for this institution. Regarding policy priorities, "national security and homeland security needs relevant to the Arctic region" is at the top of the list, followed by a number of issues with environmental concerns and the need for multilateral cooperation as the common denominator. The paragraph on "National Security and Homeland Security Interests" states the United States' "broad and fundamental national security interests in the Arctic region" and the US willingness "to operate either independently or in conjunction with other states to safeguard these interests". The specification of interests includes tradition-

al hard security elements as well as threats from terrorism and other hostile acts. Apart from missile defence and early warning, the focus is on the Arctic as a maritime domain.

This is not the place to repeat the further details of the US Arctic strategy. However, a few points with direct bearing on elements of the analyses in this volume deserve mentioning. First, the Directive strongly emphasizes the importance of US accession to UNCLOS, also with a view, inter alia, to military national security interests. This is in line with the US endorsement of the May 2008 Ilulissat declaration. Then Senator and present US Secretary of State Hillary R. Clinton's clear statement on the need to accede to UNCLOS during the Senate Confirmation Hearing, together with other evidence give good reason to believe that the Obama administration will continue the Bush presidency's line on this and press for a vote in the Senate sooner rather than later. Up until now, US accession has been hampered by resistance by some conservatives, who have denounced the Convention as a threat to US sovereignty. Second, and in logical continuation of the focus on UNCLOS, the Directive argues that the geopolitical circumstances of the Arctic make a comprehensive Arctic treaty along the lines of the 1959 Antarctic Treaty "not appropriate or necessary". Third, and to the disappointment of some Canadian analysts, the Directive restates the well-known US view on the status of the Northwest Passage and certain stretches of the Northern Sea Route (Northeast Passage) as "straits used for international navigation". Fourth, the Directive states that the Arctic Council should remain within its current mandate and not be transformed into a formal international organization. Fifth, the Directive points to the possible need to increase capabilities and capacity to protect the United States' air, land and sea borders in the region, and to increase maritime domain awareness to protect maritime commerce, critical infrastructure and key resources. Conspicuously absent from the document, also in the view of the high profile Russian High North policy, in recent years, is a discussion of relations with Russia in the Arctic.

While the United States is an established Arctic power with clearly defined interests, and with already existing or potential means to uphold and if necessary defend these interests, the foundations of the European Union's

(relatively) newfound focus on the Arctic is more elusive. This applies particularly to the security sphere, where the European Union in general is still in the process of transforming ideals and ambitions into tangible and sustainable operational instruments. Moreover, the Union as such has no direct stake in the Arctic Ocean area, as Greenland, although part of Denmark, is outside the organization; a status shared by the other four Arctic Rim states.

Nevertheless, in 2008 the EU's interest in Arctic affairs was expressed in three separate documents. The first of these, a joint paper issued in March by the EU's High Representative and the European Commission on "Climate change and international security", argued that increased accessibility to the "enormous" Arctic hydrocarbon resources is already "changing the geo-strategic dynamics of the region with potential consequences for international stability and European security interests." Warning against the danger for an emerging "competition for energy resources" and "potential conflict over resources in Polar regions", the document nevertheless contains no analysis of the actual localisation of potential petroleum fields and the legal issues involved.[16] Similar attitudes came to the forefront when the European Parliament in October expressed its concern over the potential security implications of the allegedly "ongoing race for the natural resources in the Arctic".[17] Both documents refer to the August 2007 flag episode as an illustration of "new strategic interests" in the Arctic resulting from climate change.

In line with these attitudes the European Parliament argued in favour of constructing a comprehensive Arctic regime along the lines of the Antarctic Treaty of 1959. In view of this it is interesting to note that a WEU Parliamentary Assembly Report on the High North of 5 November 2008 makes the reasonable point that it is rather unlikely that Russia will be willing to give up its claims to the extended continental shelf in favour of an international regime.[18] It was noted with satisfaction

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[16] Cf. joint paper by the Commission and the Secretary-General/High Commissioner on "Climate change and international security", III/6.

[17] European Parliament resolution of 9 October 2008 on Arctic governance.

[18] "Europe's northern security dimension", report submitted to the WEU Assembly, 5 November 2008, p. 11 (point 40).

in the Arctic states, therefore, that the EU Commission's communication to the European Parliament and Council of 9 November 2008 did not support the idea of a comprehensive Arctic Treaty, referring instead to UNCLOS as the relevant, extensive "international legal framework" for the region. UNCLOS, it was pointed out, provides the basis for the settlement of disputes, including those concerning maritime delimitation.[19]

Despite the somewhat alarmist attitudes in the March 2008 paper referred to above, there is little evidence in most documents and discussion emanating from the EU that the organisation sees a military defence role for itself in the Arctic. On the other hand, the EU's increasing focus on the need for crisis management and disaster response instruments may point to the potential use of EU military assets in support of civil authorities dealing with such contingencies in the High North. If this were to result, NATO would no longer be the only multilateral security actor in town. In this context, the Alliance's relationship with the Union in the Arctic, and opportunities for collaboration or a division of labour, would constitute additional factors to figure in the broader inter-institutional debate about their strategic partnership.

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Finally, what is to be made of NATO's future approach to the evolving security environment of the High North? Several of the papers that follow give pieces of an answer. In view of this, only a few points which seem to merit particular interest will be mentioned here, some of which were reinforced at the aforementioned NATO Official Seminar and Academic Roundtable addressing security prospects in the High North in late January 2009.[20]

- **Comprehensive Approach**. The expected expansion of economic activity in the High North will increase the region's strategic

[19] Commission of the European Communities: *Communication from the Commission to the European Parliament and the Council. The European Union and the Arctic*, COM (2008) 763.
[20] "Security Prospects in the High North" organized jointly by NATO and Government of Iceland with the support of the NATO Defense College, Reykjavik, 29-30 January 2009.

significance but will also create challenges and multiple risks. Most projected risks, however, are non-military and related to the need to protect the fragile Arctic ecosystems and handle non-intentional effects of increasing human presence. High on the list are possible accidents at sea related to energy extraction, shipping and tourism. In this context, one of NATO's key challenges, in the High North as elsewhere, will be defining the framework, scope and content of military-civil cooperation (i.e. operationalizing and implementing a Comprehensive Approach in the Arctic.) Having moved from the Cold War's focus on a single threat to the challenge of managing multiple risks, the Alliance must improve its skills in complex interaction with state and non-state national, local, regional and international actors. NATO's aim should not be the widest possible range of activity and presence, but rather to focus on selected issues where the Alliance can add value based on its experience and capabilities as a political-military organisation. NATO's presence in the High North should be measured in terms of the Alliance's role as a provider of enhanced capabilities for crisis prevention and management as a prerequisite for long-term stability and prosperity. Here it is not difficult to envision a potential, albeit limited role of NATO forces in support of civilian authorities engaged in surveillance and search and rescue operations. Placing greater emphasis on the High North in the NATO Science For Peace Programme and the Euro-Atlantic Partnership Council, for example, to address the forecast and prevention of natural and manmade catastrophes like oil spills, and critical infrastructure protection in the Arctic (shared lists and best practices), may also point to a worthwhile Alliance contribution to the security of the region.

- **Non-Alarmism**. All actors, including the Alliance, should be aware of the need to avoid unfounded alarmism in discussions of High North security issues. All Arctic powers and other parties with stakes in the region have expressed their full support for existing legal regimes and governance structures. UNCLOS in

particular gives clear guidance to the resolution of still-open conflicts of interest among Allies, and between NATO Member States and the Russian Federation.

- **Demonstrable Presence.** NATO's involvement and presence in the High North must have the long-term aim of contributing to the continuation and strengthening of stability and prosperity in the region. However, in the Arctic as elsewhere an adequate level of military preparedness and presence is a prerequisite for sustainable stability. The challenge will be to develop non-provocative ways of demonstrating Allied solidarity and preparedness.

- **Partnership**. NATO needs to look into possible roles in the High North with a view to both Article 5 and non-Article 5 activities, and NATO's partners should be actively engaged whenever possible. Increasing situational awareness by means of surveillance and intelligence will be a key to success in other areas. Here as elsewhere the need for intra-Alliance activity in some fields should be balanced against the necessity of maximum openness to partner involvement in others. Building confidence demands transparency, while closed doors give fuel to suspicion and allegations of hostile intentions. For this reason, NATO discussions of High North issues should whenever possible be fully open to active participation by interested partners. The Alliance should signal its intention to make the High North an example of its commitment to cooperative security. In this regard, there should be particular recognition of Russia's key role as a major Arctic power with huge economic interests and legitimate security interest in the region. Stability and prosperity in the High North cannot be achieved without Russia's active and positive participation. NATO's Arctic member countries should be encouraged to continue and when appropriate expand existing bilateral contacts with Russia in the military and non-military security fields. NATO should make a clear statement of its will to use the NATO Russia Council as a forum for dialogue and discussion on High North issues.

- **Indivisible Security**. The renewed interest in the High North should not be misconstrued as an example of regionalisation that may undermine NATO's continued emphasis on the indivisibility of security for all Allies. Risks and uncertainty in the High North affect all members of the Alliance. NATO policy in the High North must be developed as part of generally applicable structures and principle. Within this general framework, discussions on NATO's approach to High North security form part of the emerging debate within NATO about the need to pay renewed attention to the Alliance's core functions "in" as opposed to "out of area" including the interpretation and credibility of the Washington Treaty's Article 5.

In summary, Alliance thinking about High North security must be guided by a firm intent to avoid a return to the zero sum chess-board reasoning of the Cold War, which presupposed that only one winner would be left on the field. The approach should be analytical rather than emotional. All steps should be calculated in terms of their long-term effect on the High North as a region of environmentally sustainable prosperity and stability; they should be predictable and legitimate in terms of the Western countries' declared policy aims, and constructive and inclusive in terms of reflecting the needs and legitimate interests of all powers with a stake in the High North.

OPTIONS FOR CLOSER COOPERATION IN THE HIGH NORTH: WHAT IS NEEDED?

Alyson J.K. Bailes*

Introduction and Scene-setting

It is not only in a geographical sense that the Arctic and Antarctic are opposites. The one is a sea, the other a land region – with consequently different mixtures of permanent or cyclical physical structures, temperature ranges and micro-climates. The composition and distribution of flora and fauna are quite distinct. Even more important in the policy context is that the High North of our globe is surrounded far more closely by human habitations and by a variety of state structures, including the territories of two of the world's largest powers (USA and Russian Federation). The nearest (quasi-) continental dry land to the North Pole, Cape Morris Jessup in Greenland, is just 7 degrees of latitude away and the capitals of Greenland and Iceland (Nuuk and Reykjavik) are both 26 degrees away at 64° North. Cape Horn is 34 degrees away from the South Pole and the nearest national capital, Buenos Aires, 56 degrees away.

The history of the High North, not surprisingly, has been marked by mankind in a quite different way and to a very different degree from the Antarctic. From a distance the white wastes of the Arctic may look pristine, but those who know them better also know that the contradictions of human nature and society have been reflected there since at least 10,000 years ago – which is when the first Inuit peoples are thought to have settled the High Arctic islands and Northern Greenland coast. Further, the variations of human settlement and activity added to physical differences have lent different characteristics to several *sub-regions* of the

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northern polar sphere, in a way that is less significant for the earth's southern extreme.

It is best to recognize the High North as already a globalized region: inhabited for at least 10,000 years, commercially exploited since the Viking age, and used for military deployments since at least the late 19th century.[1] It has, moreover, repeatedly been the scene for episodes of competition between the major international actors of the age, some relatively innocuous and sporting like the search for the Northwest Passage up to the early 20th century, but some decidedly more sinister. European nations saw one other very much as rivals in the first attempt to open up areas west of Greenland and exploit the resources of Iceland, from the fifteenth century onwards. If the military then lost interest for a while in what appeared a strategic dead end, the whalers of many nations persisted in their visits until whales were driven near extinction – and many Inuit communities were introduced to modern weapons, drink and disease. Re-militarization waited only upon the technical advances and widening nets of strategic interaction that in the Second World War pushed the battle over naval convoys as far north as the ice would permit, and in the Cold War, saw nuclear submarines patrolling under the central icecap. Russia even used remote Arctic territories like Novaya Zemlya for nuclear testing.

Any idea of handling the region's challenges through a mutual 'stay away' agreement is, thus, thousands of years too late. There is already a multi-layered set of human interests invested in the High North, starting with the oldest indigenous populations and the earlier or more recent permanent settlers in territories above or close to the Arctic Circle. Russia, the USA, Canada, Denmark and Norway as 'littoral' states have (partly overlapping and conflicting) claims to sea and seabed areas extending northwards from their land-masses and associated islands,[2] while Iceland, Sweden and Finland are also members of the Arctic Council deliberating

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[1] For more on this see A.J.K. Bailes, *The High North in Perspective,* in Rose Gottemoeller and Rolf Tamnes (eds.), *High North High Stakes*, Fagbokforlaget: Bergen, 2008, pp 115-124.

[2] For a summary of claims and legal background see Sven G Holtsmark, *Towards cooperation or confrontation? Security in the High North*, Research Paper No 45, NATO Defence College, 2009.

on the peaceful civilian management of the region. To these players must now be added other northern hemisphere states likely to be especially interested in Arctic transit as the ice melts – which certainly includes China, Japan and South Korea – and all member states of the NATO and the European Union organizations, which are starting to define collective Arctic or High North policies.

Ultimately, of course, all states, peoples and institutions of the globe have an interest in what happens at the world's northern extreme. The fate of its environment and natural processes has literally worldwide effects on climate; its economic exploitation is highly relevant for the future of world energy resources and who controls them (perhaps also for marine food resources!); and in the worst case, where new pressures led to military violence, the identity of the states involved could not help but make the repercussions alarming and perhaps directly dangerous for everyone. As a final complication come the interests of millions of circumpolar birds, animals, sea creatures and plants that cannot plead their own causes, but which most thinking people would regard as a global treasure worthy of preservation.

The increasing pressure that the globalized world and its interests are exerting on the High North is easily pictured as a curse, a burden, and the root of all current ills. Indeed, the region has typically suffered more than it gained by outside intrusions throughout history. Most recently it has been a helpless target of the pollution and emissions that have not only triggered environmental warming and melting, but contaminated the polar food chain with manmade poisons and opened a gap in the ozone layer overhead.

There is another way, however, to look at the Arctic/global interaction today. If the region is being invaded by global processes, at least this current set of issues is arising at a time when globalization is a recognized, much analyzed, and (to a limited but increasing extent) a directed phenomenon. Just as governments and ordinary citizens can now be moved to care about and try to help with conflicts and human disasters in faraway conti-

nents – in a way never precisely paralleled in history – it has become possible for thought leaders and decision makers everywhere to feel a common responsibility for natural areas facing dramatic change such as the Amazon or Indonesian forests, the Sahel, and now the High North. The fundamental new factor that was missing when the Vikings harvested trees in Vinland, or the whalers plied their trade, is awareness of global *interdependence*.

If the actors with power to shape events in the High North fall into conflict with each other they will clearly be creating dangers also – and most directly – for themselves. But even the over-brutal and hasty exploitation of new routes and resources can quickly backfire on all players by degrading the local environment, thereby wasting assets and making sustained operations harder than they need to be, and by the knock-on effect on planetary balances, both environmental and economic. Even at this early stage in exploring the new northern agenda, it is crystal clear that the only viable solutions are based on win-win cooperation and on respect for planned, transparent, at least partly regulated frameworks of action by state and non-state actors alike.

Good scenarios are, however, only somewhat less varied than bad ones in this case. The one form that a considered, cooperative approach is not likely to take is the negotiation of a single Antarctic Treaty-style regime. As argued above, the region is too 'occupied' and exploited already; the issues and angles needing coverage are too diverse; many of them are already covered at least to some degree by existing international legal and institutional frameworks; and too many different actors are involved, including international business which could only in the world of fantasy be shut out from such a potentially profitable arena. That still leaves, however, a spectrum of approaches ranging from maximum, institutionalized regulation – where, again, quite a few different institutions could offer themselves as leaders – through to a Westphalian-type carve-up of geographical and functional zones of interest, or an 'agreement to disagree' under which different players would develop their claims and compete commercially - but with an understanding not to push the matter as far as war.

The purpose of this paper is to explore the building-blocks and options for such solutions in greater detail. It will argue that, given what appear to be the range of practical challenges and the range of interests deserving protection, the best future solutions for the Arctic will be ones that:

a) are *multi-functional*, addressing all the relevant areas of activity and governance in a coherent way and, in particular, accepting that the meaning of *security* in an Arctic context has many dimensions;

b) are *multi-institutional,* making use of the frameworks and competences of a number of different organizations in a complementary manner; and

c) use a *cross-sectoral* approach, looking not only to governments and state-based organizations as actors, but also considering the potential roles (for good or ill) of non-state actors such as business entities, civil society groupings and non-governmental organizations (NGOs).

Finally, the potential lessons and roles for NATO under this approach will be reviewed and summarized.

Multi-functional Solutions

It is not hard to make the case for a multi-functional approach to the challenges of managing the High North. Even the brief introduction above shows that the latter has aspects stretching over practically every field of public governance. To take examples from recent texts: the Ilulissat Declaration made by the five littoral powers in Greenland on 28 May 2008 makes reference to acknowledged needs in the fields of environment and ecosystem protection, navigation, scientific research and monitoring, search and rescue and disaster response, and 'safety of life'.[3] The Communication on 'The European Union and the Arctic Region' published by the European Commission on 20 November 2008 discusses the environment, climate change, support for indigenous populations, research, general energy policy, the sustainable use of hydrocarbons and

[3] Ilulissat Declaration of 28 May 2008 by Canada, Denmark, Norway, the Russian Federation and the USA plus the Greenland authorities, published by the Danish Ministry of Foreign Affairs at URL http://www.um.dk/NR/rdonlyres/BE00B850-D278-4489-A6BE-6AE230415546/0/ArcticOceanConference.pdf.

fisheries, transport, and tourism – many of these being, in practical terms, interlinked.[4] In the Arctic Council framework, Norway, Sweden and Denmark have published a coordinated programme for their three successive presidencies, with the headings 'Climate change', 'Integrated management of resources', 'The [current] International Polar Year', 'Indigenous peoples and local living conditions', and 'Management issues' which include information sharing.[5] Last but not least, the directive on Arctic Region Policy published by the US Administration on 12 January 2009[6] divides its statements of intent into national security and homeland security; environmental; natural resource management; institutional; indigenous peoples; and science and research sections.

The broad common ground between all four of these examples might be called the conventional High North agenda. Wide-ranging as it is, however, this complex of issues still reflects the pattern of business before 'globalizing' changes have fully worked themselves through. Here, an attempt will be made to review *a priori* the widest possible range of issues that could be construed as dimensions of future Arctic *security*. They are divided into four groups: military and territorial security; environmental security; economic, energy and functional security; and the remaining 'human security' issues.

As regards *traditional defence and territorial security*, the High North, like other regions, has enjoyed some relaxation since the Cold War, but its strategic status has been less radically transformed than that of the European heartland. US and Russian strategic nuclear forces, albeit reduced, still face each other across the pole and Greenland is implicated in the latest controversy over nuclear policy in view of its consent to a missile defence-related installation at Thule.[7] The political balance has been

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[4] European Commission, *The European Union and the Arctic Region*, text released on 20 Nov. 2008 at http://ec.europa.eu/maritimeaffairs/press/press_rel201108_en.html.

[5] Text at http://arctic-council.org/article/2007/11/common_priorities.

[6] Presidential Directive no. NSPD-66 and HSPD-25 on Arctic Region Policy dated 9 January and released 12 January 2009, text at http://www.fas.org/irp/offdocs/nspd/nspd-66.htm.

[7] An existing air defence radar is being upgraded, scheduled for completion late in 2009.

less tipped than elsewhere by NATO enlargement, the only fundamental change of institutional status since 1990 being Sweden's and Finland's entry to the EU – with implications limited by these countries' continued non-Allied status and their lack of a circumpolar seaboard. One NATO ally in the region, Iceland, has no defence forces anyway and the USA withdrew its last military personnel from that country in September 2006. Russia, by contrast, has recently taken conscious steps to raise its High North military profile: both by the famous escapade of 2 August 2007 when a submersible planted a Russian flag on the seabed at the estimated location of the North Pole, and by a new pattern of military aircraft flights making a complete loop round Iceland. Both sides also continue a pattern of naval and air exercises in the area and are planning the acquisition of more Arctic-capable assets.

These facts are enough to explain the frequently voiced concerns about potential [re-]militarization of the High North - or even the risk of military clashes over territorial and resource claims (including fishery protection) - which are more fully explored in other parts of this volume. However, the 'hard' threat and risk agenda is also limited in some significant ways compared with other world regions of security concern. The Arctic nations have rival claims to the seabed but not to one others' territories, nor are there obvious risks of state collapse and internal conflict – which hostile powers might exploit – anywhere in the region. (The only potential change of land frontiers would be the possible full independence of Greenland, to which a peaceful way lies open.)[8] Functionally speaking, as the present Norwegian Chief of Defence has pointed out, there is no real scope for the use of ground forces in the polar region proper. Both deliberate strikes and accidental clashes would involve air or naval forces (possibly marines?), in limited numbers, which could also swiftly be withdrawn to de-escalate an incident.[9] These assumptions would of course be qualified if any power decided to develop new permanent force bases in

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[8] See Natalia Loukacheva, The Arctic Promise: Legal and Political Autonomy of Greenland and Nunavut, University of Toronto Press 2007.

[9] General Sverre Diesen, Security in the Northern Region, in High North High Stakes, op.cit. (note 1 above).

high latitudes; but, in the near term at least, resource constraints, logistic problems and other pressing defence priorities do not seem to place that probability very high.

Such military challenges as exist can prompt two kinds of action: to defend one's own assets and interests, *inter alia* by *deterring* various potential enemy actions, or to reduce the overall risk. The former agenda is one for individual countries and their alliances, and presents options such as the upgrading of surveillance and early warning systems, identification of elements of rapid response, permanent or temporary force redeployments and exercises (which might also imply adapting more assets for Arctic conditions), and – perhaps critically – new demonstrations of multinational solidarity.[10] Typical approaches to risk reduction would be measures of arms control, confidence building, or other regulation and codification of military activity which in turn could take forms that are unilateral, 'coordinated unilateral', or negotiated among the concerned powers.

Interestingly, despite the widespread impression of Arctic peacefulness to date, it is this latter set of measures that are most lacking and also difficult to envisage in the High North's case. The problem is partly that this region is only marginally covered by existing regimes of the Organization for Security and Cooperation in Europe (OSCE), or by the 'flank' provisions of the Conventional Forces in Europe (CFE) Treaty;[11] and partly that post-World War Two methods of arms control have proved very hard to apply to air and naval forces in general. It is almost impossible to enforce or even monitor limits on air or naval assets and their activity in a specific zone, given their extreme mobility. Moreover, the USA has always set its face firmly against naval arms control, despite (or because of) the repeated tabling of Russian proposals for it in the OSCE context.[12] At a common-sense level, finally, cooperative verification of limitations

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[10] For more on NATO options see Sven G Holtsmark, as note 2 above.

[11] The CFE Treaty of 1990 and its adapted version of 1999 are currently 'frozen' because of disputes between Russia and the West.

[12] E.g. the Russian Delegation's paper of July 2008: *Confidence and Security-Building Measures in the Naval Area* (FSC:DEL 120/08 of 2.7.08, text at http://www.osce.org/documents/cio/2008/07/31972_en.pdf).

would pose special practical problems across such a huge and empty space as the North Polar region: the required level of patrolling by air and sea assets would itself be a form of 'militarization'.

It may nevertheless be worth exploring the 'restraint' agenda a little further, if only because it has been somewhat neglected in recent studies. The most radical and least feasible option would be an agreement among the circumpolar powers and other interested nations to *de-militarize* some part of the high polar region by banning both bases and temporary deployments there (which would logically have to include submarine transit). This would follow the Nordic precedents of the Åland Treaty of 1856 and the Svalbard (Spitsbergen) Treaty of 1920, both of which include significant restraints on military activity and are still in force.[13] A more limited option would be to agree similar provisions in respect of *nuclear-capable* forces only, i.e. a North Polar Nuclear Weapon Free (or Weapons of Mass Destruction Free) Zone.[14] It is assumed that only sea areas would be covered, as complete de-militarization would have serious strategic consequences for both Iceland and Greenland, and it is hard to imagine Russia giving up the military use of any of its own territories to a balancing extent.

Less drastic approaches could involve the renewal, multilateralization and adaptation to new polar conditions of the type of agreement concluded between the USA and Soviet Union during the Cold War on Avoidance of Incidents at Sea. A possible twist would be to include principles on humanitarian help between aircraft and vessels in the case of 'natural' accidents.Finally, both traditional and new options for transparency could be looked at, involving especially the prior declaration of movements, or changes in patterns of activity, or – more intrusively – the observing of exercises and perhaps some elements of collaborative monitoring.

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[13] See Matthieu Chillaud, *Territorial Disarmament in the North: The epilogue of a success story?,* SIPRI Policy Paper No 13, 2006, http://books.sipri.org/files/PP/SIPRIPP13.pdf.

[14] A Nordic Nuclear Weapon Free Zone was often mooted in the Cold War but the USA and NATO collectively always blocked it because of concerns over feasibility, balance and the impact on Allied solidarity.

A recent argument used notably by the George W. Bush Administration against arms control was that nations and their forces must stay free to defend themselves against threatening *non-state actors*. It is therefore worth noting that the High North has so far been free of both terrorism and piracy in modern times.[15] That is not to say that terrorists might not be attracted in future both by naval targets carrying valuable energy supplies, and by large vessels carrying Western tourists, as well as newly critical transport and communication hubs. Increased international transport and transit also automatically raises the possibility of more smuggling. What is against such potential malefactors is on the one hand the severity and unpredictability of the climate, and on the other hand the smallness and limited variety of local populations, which makes it hard for hostile outsiders to 'go to ground' or even pass through unobserved. Even so, complacency on this aspect would be ill-advised and the precautions taken both by governments within the area and by their allies and neighbours will need to be maintained and constantly reassessed. There are *prima facie* openings here for cooperation among all circumpolar nations, which may help offset their competing strategic interests at other levels.

The agenda of *environmental sec*urity is relatively straightforward but has two sides: protecting the environment and local ecology, and protecting local people and assets from the violence of nature itself. Both problems are aggravated and will continue to be so by the larger process of climate change. A combination of air and sea warming and altered, often more extreme and unpredictable, weather patterns is rapidly reducing ice cover by sea and land and transforming the habitats and food chains that Arctic fauna have relied on. As already noted, the warming itself reflects a massive feedback phenomenon between the Arctic and global environmental trends, which could develop into even more dramatic forms in both directions – the raising of global sea levels by a more complete ice melt, and (in some views) the interruption of the warm Gulf Stream that has mitigated conditions in the European Arctic. Aside from the concern to protect nature in its own right and to avoid such macro-hazards, human policies must take heed of the like-

[15] North African pirates did attack Iceland in the 17th century.

ly impact of climate processes on commercially important features like fish stocks, as well as the expected positive change in accessibility of hydrocarbon or mineral resources. The transformation of biomass seems certain to change the pattern and nature of traditional fisheries, and at worst, could result in fewer useful resources and more pests, weeds and diseases overall. It is far too early to guess whether the balance of advantage for mankind will come out positive or negative at any given time.

On balance these considerations strongly support the argument for doing whatever humans can do to limit and slow the process of climate change. The problems and contradictions are however equally clear. The main quandary for the High North is that the majority of changes and sacrifices needed to protect its environment must be taken by governments and populations located outside the region. It is not Canadian, Icelandic, Norwegian or even Alaskan and Siberian emissions that are currently driving the warming process – even if one of the most worrying and least controllable factors in the next phase is the possible wholesale melting of tundra causing a surge in methane release. The whole of the European, and more problematically the US, Russian and Chinese economies would need to mend their ways to make any real difference to global climate mechanics. Again, the likely rise in economic exploitation of the High North - which could have obvious knock-on effects both through direct disruption of natural habitats, disturbance of wildlife, and conscious or accidental pollution, and through its effect on local energy use and emission patterns – will overwhelmingly involve large companies based outside the Arctic circle, including many from nations not members of the Arctic Council.

The detailed methods that might be used (or are already being developed) to counter the general process of climate change, and to minimize the risk of accelerating it and damaging the environment by new activities entering the Arctic, cannot be discussed in further detail here.[16]

[16] Some useful sources are the latest (2007) assessment of the International Panel on Climate Change (IPCC), at http://www.ipcc.ch/ipccreports/ar4-syr.htm; the Stern Review on the Economics of Climate Change, at http://www.hm-treasury.gov.uk/sternreview_index.htm; and the latest position adopted by the EU, in paras. 51-61 of the Presidency Conclusions of the European Council meeting of 14 December 2008, at http://consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/97669.pdf.

Further points on resource use will also be left to the next section. However, three other dimensions more directly applicable to the region and its peoples are worth noting.

First is the issue of the impact of local communities themselves on the environment, which may be small in the overall scheme of things but can make a critical difference, especially for flora, fauna and natural landscapes. It is also a sensitive question with no obviously right answer. Controlling the level of traditional hunting by indigenous people (e.g. by licensing) has proved difficult up to now, and the impact on marginal populations of wildlife and marine life could become fateful when added to climate stresses, disturbance of migration and so on. Yet when people abandon such traditional ways to live small-town lives dependent on bought food, the problems of rubbish, pollution and carbon emissions grow alongside the well-documented social strains. For more developed and historically imported populations like those of Iceland, northernmost Scandinavia, Alaska and Siberia, the corresponding policy dilemmas are mostly over optimizing income and employment through maximum resource extraction and energy production *versus* keeping the environment pristine and (where possible) developing non-industrial occupations. A lot more thought is needed over how these agendas may be shifted and/or sharpened by further climate change, including the full implications of the likely extension of cultivable land – and the inputs that could be needed to exploit it. Analogous to the military restraint measures discussed above, an extension of *natural reserves/wilderness parks* both on land and at sea might need to be considered as the price for letting local populations and incomers enjoy more unrestrained development in the remaining areas. Also or separately, local states could strengthen and harmonize regimes of *planning control* for both residential and commercial settlements, which has not been a strong point through much of the High North up to now.

The second and less problematic point is the need for further *scientific research and monitoring*, in which local institutions, experts, and amateur observers must be encouraged to play a full part. The tradition of peaceful international cooperation in this field is strong and as mentioned

above, another International Polar Year is currently in force. However, there is always scope to improve both coordination and openness – the latter especially in regard to Russia, where military habits of secrecy have sometimes been an obstacle. In general, constant efforts will be needed to maintain funding for these purposes at a time of economic hardship when many could be tempted to go for the fast gains while closing their eyes to consequences. Pursuing the US idea of a 'circumpolar observing network' might be one way to keep up the momentum.

The third point is prompted by reflection on the marginal nature of many High North environments combined with possible further developments in the technology of environmental modification. In the middle of the Cold War there was a surge of concern on the one hand about such technologies that the superpowers might use against each other, and on the other hand about superpower use of methods such as defoliants in other conflict areas like Vietnam. The main result was the so-called ENMOD Convention (Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques) which came into force in October 1978 but from which many important powers abstained. This elaborated on a general principle already laid down in an Additional Protocol to the Geneva Convention of 1949 that states should not use means or methods of warfare having a 'widespread, long lasting and severe' impact on the environment. The ENMOD text itself has remained largely a dead letter, partly because of its own imperfections and political resistance, but also because modification techniques did not actually develop as fast as feared: more recent controversial cases have again involved 'low technology' like herbicides and the deliberate spilling or burning of oil.[17]

Today, however, a scientific debate is developing over whether major projects of geo- or bio-engineering should be considered in the

[17] See Susana Pimiento Chamorro and Edward Hammond, Addressing Environmental Modification in Post-Cold War Conflict: The Convention on the Prohibition of Military or Any other Hostile Use of Environmental Modification Techniques (ENMOD) and Related Agreements, http://www.edmonds-institute.org/pimiento.html.

medium-term future to curb and offset the effects of global warming and climate change. Methods discussed include various approaches to carbon capture, some requiring large-scale 'doctoring' of sea-water: changing the reflective characteristics of surfaces; manipulating cloud cover, or deploying large constructs of various sorts in the upper atmosphere. Many of these would be prohibited by the Geneva and ENMOD Conventions if undertaken with hostile intent, since their impact would by definition be massive and lasting.[18] Questions that arise for the High North region, among others, are: (i) Could such new techniques also be used by one party against other powers, e.g. by diverting natural processes and resource flows? (ii) Could such methods be developed or acquired by hostile non-state actors? (iii) Should the ideas behind the ENMOD initiative perhaps be revisited in order to highlight and pre-empt these dangers? (iv) Is there a case for early international regulation of the development and use of such techniques even for benign purposes, making sure it would only happen on a cooperative and meticulously researched basis?

At all events and even if man-made weather does not materialize, the flip-side of the environment protection agenda remains the need to *protect humans against the environment*, in the form of violent weather, natural disasters, and incremental changes that reduce habitable and cultivable land and worsen the conditions for life. The High North may gain in terms of useable land, but the other two points are already highly relevant and will become more so. The early stages of warming have coincided in the North with more frequent storms and new temperature extremes, changes of seasonal pattern and more unpredictable weather in general. It is hard to extrapolate how more drastic changes like major shrinkage of the ice-cap and diversions of sea currents would affect the trend, but a new stable equilibrium will not be reached any time soon and the behaviour of annual winter ice is of particular concern. The resulting instability might mean significant setbacks for new shipping and extractive activity, but also carries risks and costs for existing communities on land. More storms, blizzards, tide

[18] The approaches outlawed under ENMOD include manipulating ozone levels, alteration of the ionosphere, provoking flood or drought, seeding clouds, introduction of invasive species, creation of storms and manipulation of ocean currents.

surges and perhaps even tsunamis could be on the cards, and – for Iceland and Alaska – it would be hasty to conclude that the tectonic processes involved in earthquakes and volcanic eruptions will be unaffected. Some implications are raised in the context of functional security below.

The next group of questions covering *energy, the economy in general, and functional security* is a mixed bag for the Arctic. If the exploitation of hydrocarbons, and perhaps other valuable raw materials such as minerals, goes ahead as predicted thanks to Arctic melting it can fairly be considered as a gain for *energy security* at the global level. In particular, supply and transit from such sources should be much more straightforward and predictable in political terms than it is from the Middle East or even some African and Central Asian destinations. The bulk of known Arctic reserves, admittedly, lie in Russian territory but – setting aside the hard security aspect discussed before – there seems no reason why the Russians should have a *more* confrontational or unreliable approach to oil and gas from the High North than they have in their production and export policy generally. Indeed, on both technological and financial grounds (following the 2008 economic crisis) it seems reasonable to expect them to develop their resources within foreign partnerships – just as they have decided to work with Norwegian and French firms in the Shtokmanovskoye (Stockmann) oil and gas fields of the Barents Sea. Smaller states are even more likely to look for partnerships to share cost and risk: Iceland, Greenland and Norway have already reached some understandings on Norwegian assistance in any development taking place under the two other entities' jurisdiction.

The most northerly human communities at present either have very modest energy needs or can meet them overwhelmingly from renewable natural sources, as Iceland does. However, Iceland would no doubt be happy if the 20% of so of its total requirements covered by imported oil at present could be imported from nearer at hand or even found in home waters. More crucial for local actors is the general effect of High Northern development on their economic security, which thus far looks set to be positive. All can hope for some share in new revenues from hydrocarbons; in

the benefits of new demand for support and transit facilities; and in the growth both of business travel and tourism. Added to new openings for agriculture, such trends should not only bring the region more cash but also a more diverse economic profile, which in itself is an important element of national security. At the extreme there might be a risk of 'Kuwait'-style attitudes, with governments and citizens alike growing addicted to essentially unearned revenue; but this danger is surely less following the harsh lessons of 2008, when Iceland in particular paid the price for relying on cash flows not backed up concrete assets and for trusting in plausible entrepreneurs. Business models for any new High North 'bubble' will now be scrutinized very carefully indeed at least by those within the area.

This does not mean that risks of an economic and functional kind can be avoided. The main catch is, again, the development of High North environmental conditions and especially of weather patterns. One expected problem has already been widely discussed, namely the accidents to *shipping* that will be inevitable as both goods transport and passenger (including tourist) transit in northern waters multiplies.[19] A large increase in oil and liquefied natural gas (LNG) transport through the waters on either side of Iceland will flow from extraction already planned in the Barents Sea, while the opening up of reliable commercial transit through the Northwest and/or Northeast Passages would multiply the effects. Accidents to large container vessels, or even careless discharges, can bring risks of major pollution – all the more serious because of the impact on fishing. Accidents to passenger vessels could leave larger groups of visitors than have been seen in the Arctic up to now, probably up into the thousands, struggling for survival in lethally cold waters. The main headache at present is that local states and settlements simply do not have the capacity for rescue (and salvage) on such a large scale, let alone the treatment of hundreds of casualties. The Ilulissat Declaration already commits the five main circumpolar states to study and cooperate on this problem, not least by information exchange, and Russia has offered some specific ideas for a

[19] For a brief account and references see Ola M Johannessen and Lasse H Pettersson, *Arctic Climate and Shipping* in *High North High Stakes*, op.cit (note 1 above).

system of search-and-rescue bases. A further approach mooted for instance in the Icelandic debate would be for states to use their powers to restrict and/or set up special rules for certain types of marine transit in their territorial waters, so as to reduce at least the risk of spills very near to the coast. The EU policy document supports the idea of possible protected marine zones including any parts of territorial waters that could be defined as particularly sensitive; but has warned that regional states should not create regimes (including e.g. special fees or compulsory services) that discriminate against foreign vessels vis-à-vis locally owned ones.[20] The new US policy document – against a background of disputes with Canada - states that 'Freedom of the seas is a top national priority', while offering some constructive ideas e.g. on internationally managed shipping lanes.[21]

What applies to shipping applies *mutatis mutandi*s to all other aspects of an expanding human presence in the High North. All settlements will be at the mercy of the environment and dependent upon long supply chains for materials, food, and their own energy sources. The current tendency to divert more communications and supplies through submarine cables and pipelines makes sense in terms of relative risks, but such links can still be broken through natural or manmade accidents. Much more systematic and cooperative work will be needed on the resulting infrastructure security, civil protection, and civil emergency response challenges for local states and jurisdictions – and for any international bodies aspiring to support them. The level of analysis, planning, and governmental adaptation for such problems varies considerably today among the members of the Arctic Council and most of the smaller (Nordic) states have so far held back from creating omnicompetent central emergency-handling structures.[22] The case for addressing this now is strengthened on the one side by the demands that 'incomers' and their governments will make for rapid state-of-the-art responses to any emergencies they face; and

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[20] European Commission, op.cit. (note 4), pp 8-9.
[21] Op.cit. (note 6), section B5.
[22] On Iceland's example see Alyson J.K. Bailes and Thröstur F. Gylfason, *"Societal Security" and Iceland*, in 'Stjórnmál og Stjórnsysla' (University of Iceland) Summer Issue 2008, URL http://www.stjornmalogstjornsysla.is/index.php?option=com_content&task=view&id=368.

on the other hand, by the needs and rights of High Northern populations themselves. This last point makes the bridge to the final dimension of security considered here.

'Human security', together with the 'responsibility to protect', is a concept largely coined by thinkers in the northern hemisphere to be applied in the South. It is however also a strong theme in the work of Arctic research and the Arctic Council itself, given the way that indigenous peoples have been and continue to be disadvantaged by most impacts of other human activity and by environmental changes alike. There are in fact grounds for worry about the future wellbeing of all populations in the region, under the double heading of *rights and ownership*, and *vulnerability and survival*.

The issue of *rights* is a complex one that includes indigenous land rights, rights to control or profit from other aspects of exploitation including the growing interest in 'bioprospecting',[23] cultural recognition, political representation and consultation, and – especially in Greenland's case – the principle of self-determination and possible future independence. All these issues may be triggered by the expected new surge in transit and commercial activity, raising the question of whether and how indigenous peoples will have a say in the management of such processes in their region.[24] At present they have substantial formal representation in the proceedings of the Arctic Council, and to an extent in the sub-regional Barents Euro-Arctic Council and its subordinate bodies: but as discussed below, it is debatable how much grip these 'softer' institutions will have on the dominant strategic and economic trends. Treatment of local interests is thus something that individual powers and new organizations staking a claim in the High North must also address, as the EU's recent policy doc-

[23] I.e. the collection and possible commercial utilization of organic substances from local life-forms. Another controversial case is the exploitation of genetic information from a complete study of the human genome in Iceland.

[24] See Natalia Loukacheva, op.cit. (note 8); and, for an up-to-date collection of international expert views, the report of the September 2008 UNU-IAS conference at Akureyri titled 'Looking Beyond the International Polar Year: Emerging and Re-emerging Issues in International Law and Policy in the Policy Regions' (forthcoming at http://www.ias.unu.edu).

ument recognizes.[25] Indigenous and local experiences, interests and wishes will, of course, themselves evolve as the full impacts of climate change are seen: some inhabitants may be empowered by new demands for local expertise, but others will face new stresses for which they could need outside help.

Human vulnerability in the High North is a compound of permanent features – such as small numbers, long communications and exposure to extreme climate – plus the local impacts of climate change, and global factors of human risk that could also strike here. A further climate-related challenge beyond those already noted is the question of disease patterns, the distribution of pests affecting people, animals and plants, and the implications of a warmer climate for hygiene, including food safety and waste disposal. The most obvious global hazard lies in the same domain, namely the impact of a major human pandemic which would increase in probability and severity as the number of humans present in the area grows. Total deaths would be small compared with other parts of the world, but the rate of loss at which society would crumble completely might be reached sooner given the permanent features of stress mentioned before. Another dimension worth mentioning is cybersecurity, where many Far Northern populations are highly 'wired up' and dependent on computerized communications and support systems, but the local governments have not been among the fastest or most inspired in responding to the challenge.

It should by now be obvious not only that the security issues facing a warming High North are manifold but also that they are all in some way interconnected. Co-dependencies exist both within the present patterns of natural life and human settlement, and between dwellers in the region and all the different actors abroad who have a direct or indirect impact upon it. The case for a coordinated multi-functional strategy to anticipate, plan for and handle the challenges is therefore clear: the next section asks who - if anyone - could coordinate it.

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[25] The Commission Communication of 20 November 2008 (note 3 above) has a section on indigenous peoples and local populations, citing i.a. provisions in the accession treaties of Finland and Sweden to the EU that accord such groups protection under Community law.

Multi-institutional Solutions

It is often stated that the High North lacks a single institutional or international legal framework for its governance, such as the Antarctic enjoys with its dedicated Treaty. While this is strictly true, stressing this point can give a false impression, to the High North's disadvantage. In fact, in common with much of the northern hemisphere, this region's problem is more one of too many institutions and frameworks than too few: especially in the western quadrant (north of the Atlantic) over which much of the current discussion is taking place.

For instance, all the circumpolar states are members of the Organization for Security and Cooperation in Europe (OSCE) and the Arctic Council. All Arctic Council states are also represented - Canada and the USA as observers - in the Council of Europe, as well as in the Barents Euro-Arctic Council which focuses on the region around the top ('Nordkalotten') of Scandinavia. Canada, Russia and the USA work together in the Group of 8 Industrialized Nations (G8), which has some tradition of focusing on multifunctional issues that escape other bodies' competence. 3 of the 8 Arctic Council members are also in the EU, 5 in the European Economic Area, 5 in NATO (including 4 out of 5 littoral states), and 5 are linked by Nordic Cooperation. The main gap in this crosscutting network of institutions occurs to the east of Russia, where states have not been able to agree (mainly because of Russia-Japan territorial disputes) on a BEAC-type sub-regional structure for the North-West Pacific, and – so far as is known – the otherwise expansionist Shanghai Cooperation Organization led by Russia and China has not put Far Northern transit on its agenda. In contrast, it would be hard to think of any framework other than the global ones, and the Antarctic Treaty itself, through which the northern and southern nations having claims and activities at the world's other pole can come together.

The institutional challenges of managing the High North are, in fact, manifold but more specific. They start with the fact that no one organization or legal framework can take a grip on the full range of issues and challenges arising, even under the limited perspective of security that

was applied in the previous section. Conversely, for certain dimensions there are almost too many fingers in the pie, and multiple institutional rules to be reconciled on any given issue by nations with multiple membership.

More concretely, the problem can be seen as threefold. First: the international legal instrument known as the *UN Convention on the Law of the Sea*[26] (UNCLOS) provides a good basis for handling a large bundle of the issues involving territorial jurisdiction, resource extraction, navigation and environment protection, but the USA, alone among Arctic Council members, has yet to ratify it. The difficulty and uncertainty over the outstanding conflicting claims and legal disputes is, thus, a double one. Is the UNCLOS system strong enough to resolve those claims that have been formally submitted to it, thus far notably by Russia and Norway, and to ensure that its decisions are enforced? Secondly, can the US Administration persuade Congress to ratify UNCLOS as the best platform for asserting national strategic and economic interests – as the new policy paper expresses it; and if not, who if anyone will then resolve the disputes that involve the USA, including an already heated one with Canada (over Northwest Passage navigation)? Further, there is no other UN-created organ or instrument specifically dedicated to the High North which would let the region be handled in a setting of guaranteed global consultation and legitimacy, although the roles of the International Maritime Organization (IMO) and UN Environment Programme (UNEP) can be important for addressing specific aspects. The international financial institutions (IFIs) have yet to come into the picture.

Secondly, the *Arctic Council* itself, and to the extent relevant the BEAC, are relatively 'soft' institutions whose policies and decisions have no intrinsic legal quality. Their competences, resources and instruments are not designed to address the 'hard' strategic agenda and the real dynamics of commercial exploitation and economic development in the region,

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[26] Signed on 10 December 1982, full text at
http://www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf.

and they exclude non-regional actors such as China who are likely to have a major say in events. As such they risk being seen as embodying an agenda that is both traditional and 'high-minded', and as being typically the protectors of smaller players (including indigenous peoples) who have little choice but to place their trust in international consultation and regulation. For more powerful actors including the USA, Russia and even the EU, it could be tempting either to ride roughshod over these institutions' prescriptions when more urgent interests dictate, or alternatively to re-invent structures and solutions that would take business away from them, thereby losing the value of their accumulated experience and goodwill.[27]

Third and last, on the *'hard' security and economic dimensions* that the existing regional structures cannot cover, there are *rival providers* in several senses: powerful states who might consider it easiest to do old-style power deals with each other, rival political organizations (NATO and the EU) even within the West, a number of specialized functional bodies and networks, and of course – as discussed in the next section – more or less organized non-governmental players. Overlaying this systemic picture of role competition is the political dimension, where relations between the West, especially the USA, and Russia have grown frosty since 2001 mainly because of strategic developments in the wider Europe. As in the Cold War, the Northern theatre has been spared the sharpest issues and worst clashes; but Russia has started sending signals of military and economic self-assertion there too, while tensions have sometime been high in the not-so-distant Baltic region. Overall, Russian treatment of Arctic issues has recently – and not untypically – sent mixed signals, sometimes of rational cooperation and sometimes of military-flavoured nationalism, with the risk of driving Western analysts also to focus disproportionately on conflict scenarios.

The significance of the *Ilulissat Declaration* comes fully into focus against this background. If its format caused irritation because it

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[27] As of now, the US policy document (note 6 above) tries to steer a middle course by suggesting possible changes to Arctic Council structure and agencies for greater operational effect.

was adopted without the three non-littoral member states of the Arctic Council, its intent was the benign and logical one of establishing politically binding principles which the five signatories could follow across the whole range of issues and frameworks involved. The most important statements in it were, first, that this group of states did not see the need for 'a new comprehensive international legal regime' in the area – and it is hard to imagine the rest of the world creating one against their will![28] – and, secondly, that they intended to approach the next phase of High North challenges in a cooperative, peaceful, responsible, market-based and law-abiding mode. The short text of the declaration also briefly reviewed the four leading issues of territorial claims and resource exploitation, where all including the USA recognized the value of UNCLOS as a framework for environmental protection, maritime and other safety needs and collaborative scientific research and monitoring. Existing institutions mentioned positively as frameworks for pursuing parts of this agenda were the IMO, Arctic Council and BEAC.

Given the status of the five states who signed the Ilulissat text, the odds have been tipped already and definitively towards a *multi-institutional solution* for the High North. It will also be a *multi-mode* solution because the frameworks and organizations involved represent different governance methods as well as varying groups of states. UNCLOS is a legal regime, not an institution; its solutions must be formulated in regard to individual nations and also implemented by them. The relevant multilateral organizations range from the relatively weak (in terms both of binding decisions and of resources), to those like NATO and the EU that are strong but for whom the Arctic is only one of a myriad of challenges. It is by no means ruled out that new international legal instruments and/or institutional bodies could be created for partial and specific needs, such as the military restraint options discussed above; management of polar fisheries and

[28] This is not to say that the idea of a single 'Arctic Treaty' regime is without its supporters – it was for instance endorsed by the European Parliament in a resolution of 9 October 2008 (text at http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2008-0474+0+DOC+XML+V0//EN&language=EN) - and pursuing the debate over why it is or is not appropriate should have the merit at least of clearing minds.

fishery protection; regulation of shipping (combining safety standards, perhaps special lanes, monitoring, emergency handling and anti-pollution measures); codes of conduct for extractive activities; or ecological protection measures, including special status for particular species (on the lines of the existing Polar Bear Convention) and geographical zones. Finally, actors outside the region could use their own groupings to discuss their interests in the High North and prepare joint positions.

In post-Cold War Europe the idea of 'mutually reinforcing institutions' has been developed and formally recognized by the OSCE,[29] though it is often more honoured in the letter than in practice. At this early stage, the West's best strategy could be to follow a natural *division of labour* between the Arctic Council and BEAC which could continue addressing 'softer' issues of environment, research, and human welfare in a relatively cooperative atmosphere; NATO which looks after Western strategic interests and will be revisited in the last section below; and the EU – acting where necessary in concord with the USA and Canada on one side and Norway and Iceland on the other – to take a Western lead on 'hard economic' issues. The fact that the EU-US axis is one of today's most important relationships in handling the general issues of both climate change and economic downturn bolsters the case for taking the EU role seriously, even if many old Arctic hands must still see it as an interloper.

What is harder to identify is a natural place for the Western circle, and then the wider group of interested powers, to consult in a more political and comprehensive way on articulating these various tools for different parts of the agenda. The G8 – or a subset of the G20 which has moved into a new global consultative role with the economic crisis – could be useful[30]and so, eventually, could the UN Security Council which has already held one discussion on climate change as a security issue.[31] Given all the

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[29] Notably in the *'Platform of Cooperative Security*' document adopted at the OSCE Istanbul Summit in November 1999 – text at http://www.osce.org/item/17513.html.

[30] The US has already proposed applying to the Arctic a set of principles on Global Energy Security adopted by the G8 in 2006.

[31] On 17 April 2007, see http://www.un.org/News/Press/docs/2007/sc9000.doc.htm.

global co-dependencies already noted, it would be a safe bet that in future, the UN and its agencies will have to place the High North more regularly on their agendas in various connections anyway.

A word may be added on two more institutional options that have not so far been prominent but could become useful and even necessary for completing the pattern of High North governance in future: Nordic Cooperation, and the International Financial Institutions. The structure of Nordic Cooperation between the five states Denmark, Finland, Iceland, Norway, and Sweden usefully includes separate representation for Greenland and the Faeroe Islands, but traditionally eschewed security issues of any kind *inter alia* because of Finland's sensitive position. Since the early 1990s, however, Prime Ministers and other ministers meeting within the framework have more openly addressed issues of high politics involving notably EU and EEA affairs, and in the latest years the various Nordic organs have cautiously opened up some themes with an overt security label. Long-standing coordination on overseas peacekeeping policy has evolved into joint operational structures and defence equipment collaboration schemes involving at least 3 of the nations,[32] while the Parliamentary body, the Nordic Council, has put 'societal security' cooperation on its agenda.

Most recently, on 9 February 2009, former Norwegian Foreign Minister Thorvald Stoltenberg delivered to Nordic Foreign Ministers an independent report that they had commissioned him to produce on 'Nordic cooperation on Foreign and Security Policy'.[33] The report deals with cooperation designed both for global security and the Nordics' own needs, and contains several items relevant to the Arctic – including Nordic coopera-

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[32] Sweden, Finland and Norway are most active and collaborate *inter alia* in the EU's Nordic Battle Group for peace operations, while Denmark has abstained. See Alyson J.K. Bailes, Gunilla Herolf and Bengt Sundelius (eds.), *The Nordic Countries and the European Security and Defence Policy*, Oxford University Press for SIPRI 2007.

[33] Thorvald Stoltenberg, *Nordic Cooperation on Foreign and Security Policy: Proposals presented to the extraordinary meeting of Nordic foreign ministers in Oslo on 9 February 2009*, full text published by the Norwegian Ministry of Foreign Affairs at www.regjeringen.no/en/dep/ud/Whats-new/News/2009/nordic_report.html?id=545258.

tion in maritime monitoring and air surveillance over Iceland, a common maritime response force and an amphibious unit – as well as one proposal (Proposal 6) directly addressing common interests in the High North. While the Nordic ministers have yet to study the report and prepare a verdict on its sometimes daring ideas, there is indeed a *prima facie* case for these five nations to seek a common line on managing the strategically delicate part of the circumpolar region that they occupy. Since they are (relatively) small states their existence could be transformed both by the prospective gains of Arctic development, and by the risks of militarization or actual conflict on their doorsteps. Yet they have relatively little influence in crude power terms, and the institutions they have made the most their own – the sub-regional ones – are also structurally the weakest among collective players. It follows that a determined and clear joint position conveyed in relevant fora, notably the EU and NATO, offers one of few hopes for gaining a hearing for distinctive Nordic concerns among those who can actually do something about them. It is preferable to the vision of each state running for individual cover from some national or collective superpower, or of the Nordics letting themselves be unnecessarily divided, e.g. over who was and was not invited to Ilulissat.[34]

Finally, the future role of the international financial institutions has been thrown wide open by the 2008 economic crisis and many influences are driving them to take more account of security issues, be it the developed world's own economic and financial security, or the relevance of conflict and disorder in development help for weaker states. Future exploitation of the High North is at one level supremely an issue of rational resource management, in which more specifically financial issues like pricing and insurance or issues of fair trading falling within WTO competence could come to play a part unimaginable now. It would be good to keep an open mind on the potential for the IFIs, as part or consequence of their impending reform process, to take a significant role in High North

[34] Nordic cooperation generally has suffered from the problem that Sweden, the natural strategic leader, does not want to lead and would not be welcomed as leader by most others. The fact that Norway is the central, most experienced and engaged nation on High North issues may or may not help unlock this delicate problem.

governance and thereby to fill needs for rule – and norm-setting that even the UN could not satisfy.

Cross-sectoral solutions

Many have warned against re-creating the Cold War in the High North arena, but it would also be a fatal mistake to approach issues there through the Cold War's typically military-focused and state-based optic. Here, as throughout the world, the active roles of non-state actors have been growing in proportional significance since 1990, just as the notion of 'human security' - protecting individual and group rights - has gained strength. The importance of indigenous and other settled populations, and of ways of involving them in policy making as well as execution, has already been underlined above when discussing such issues as environmental impact, economic scenarios, disaster response and health security. Voluntary and civil society-based organizations play prominent and growing roles, whether we consider home-grown Red Cross-type organizations[35] or international NGOs championing environmental and humanitarian causes. Again, independent scientific experts and academics have traditionally had high status and much influence in identifying Arctic challenges, and one of today's urgent tasks is to build more contact and common agendas between those who have long worked in the region and those now bringing new strategic and institutional agendas into it. In the context of Nordic Cooperation, as just discussed, much could be done to join up the smaller countries' research and policy advice capacities across national borders and on an interdisciplinary basis.

The only additional point there is room to expand on here is one that many security experts find intractable or even distasteful: the role of private business.[36] The High North is not a region in which private military companies are ever likely to flourish, but the growing extractive,

[35] E.g. Iceland's disaster response system relies heavily on several thousand trained volunteer rescuers: Bailes and Gylfason, op.cit. (note 20).

[36] For the record of a conference held in Iceland on 20-21 August specifically to address this, see http://www2.hi.is/solofile/1014144. The 'Northern Forum', which covers principally the Russian segment of the Arctic, has plans to set up a dedicated Business Forum.

transport and tourism business will certainly increase the demand and scope for more specialized commercial security services, as well as for new extensions or forms of insurance. Far more important, however, is the security impact that companies have and will have as a by product of their normal operations. The human and environmental cost of High North development could vary hugely according to how well the private sector rises to the challenge of finding technological solutions for local needs and risks; incorporates safety-first thinking in every aspect of its own operations; minimizes its impact upon the natural environment; respects local populations' interests; reacts appropriately to accidents and emergencies affecting itself, and supports local states and populations when they are similarly hit. On top of this, issues like transparency, fair trading, and the kind of sense of responsibility that was conspicuously lacking in the recent Icelandic bubble will make a huge difference to the atmosphere, mood, and external image of Arctic development.

On the face of it the way is wide open for the development of a Corporate Social Responsibility (CSR)-type code specifically designed for the High North and covering all the above points, which companies would develop and voluntarily obey on top of – of course – respecting any formal new legal provisions. Sector-specific codes could be considered, notably for the extractive sector and for ecologically responsible tourism. Some or all of the Nordic countries would be perfectly placed to launch initial work on this, though the CSR movement is also widespread in North America.[37]

Finally: why NATO, and which NATO?

Where does all this leave NATO? Without duplicating other authors' contributions, it may be argued that the Alliance has two obvious roles in regard to the High North and a third that deserves bringing back into fashion. First, within the multi-functional approach and the multi-institutional division of labour suggested above, NATO is clearly indispen-

[37] Similar proposals were offered for consideration by the Stoltenberg review by the present author and Dr Páll Ágeir Davidsson of the University of Reykjavik.

sable for covering Western needs in the sphere of military security. It can, however, serve more than just its own members' interests if it contrives to maintain a circumpolar strategic balance under which – in what only looks like a paradox – appropriate military awareness and preparedness can actually hold back militarization, by reducing the temptations for adventure and the rewards for provocation.

Since the events of summer 2008 in Georgia, NATO has been under some pressure to return its attention to unresolved tensions in Europe and re-examine the credibility of its own members' defence. The High North is one area in which the equivalent issues could be addressed without merely retracing old paths, and while applying new lessons learned in the global arena. It is a question on which NATO could naturally deepen its cooperation with Sweden and Finland, whether or not they eventually move into membership. Fresh thinking would be welcome on how to address it in the NATO-Russia relationship, and perhaps the NATO-China dialogue. Some may even hope to make the Alliance the main forum for coordinating the Western input to multi-institutional strategies as discussed above, though the limits of its economic insight may not make this objectively the obvious answer.

Secondly, NATO has at least for the moment[38] some unique expertise and certainly unique assets for addressing the problems of civil emergencies and especially large scale search and rescue in the circumpolar zone. This is another field in which Allies have a chance to show solidarity with their smaller and least well equipped partners, as NATO has arguably already done by instituting periodic air defence deployments to Iceland. It would also be a natural case for a partnership approach between NATO and Nordic Cooperation.

Third and not least, this author would like to see NATO take a confident lead in exploring the possibilities of 'restraint' elements as dis-

[38] The EU is developing its legislation on civil emergency protection and has a sizeable emergency fund and expert pool for helping members or partners in difficulty. For obvious reasons, however, it has trouble in mobilizing relevant military assets or combining them with civil ones.

cussed under the hard-security heading above. The Alliance's superiority and eventual success in the Cold War was grounded in its 'Harmel doctrine'[39], which prescribed equal efforts for self-defence and deterrence on the one hand, and détente (relaxation of tension) including disarmament with possible adversaries on the other. That balance has been lost by degrees since 1990 and especially since 2001, but the experiences of 2008 have already led to questioning of whether NATO can either survive or serve its members' best interests through a purely and maximally action-based, ceaselessly expansionist strategy. The incoming US Administration is pledged to renew efforts for arms control and disarmament as well as non-proliferation in many different contexts, and to be more open to accepting new binding international norms also for the USA. The moment may be ripe for looking at the desirable balance of High North governance in a similar spirit, growing out of the Ilulissat Declaration which Washington has already signed, but drawing a wider range of Western democracies into the policy shaping. During the Cold War the Nordic states' reasons for interest in a nuclear weapon free zone were always overruled in NATO because it would have set them apart from other Allies in terms of common risk-sharing. Perhaps today if the Arctic is recognized as both a global possession and an arena where all Western democracies' interests are commonly at risk, a 'restraint' solution could be found that will actually help heal Allied tensions and bolster Allied solidarity.

[39] Based on the Harmel Report adopted in December 1967, see http://www.nato.int/archives/harmel/harmel.htm.

EXPANDING THE CANADA-US SECURITY REGIME TO THE NORTH?

Samantha L. Arnold and Stéphane Roussel*

Since the beginning of the new millennium, Arctic issues have attracted growing attention from officials and scholars, not only in circumpolar nations but also in other "interested nations" such as China, Korea, or European Union members. This interest is no doubt fuelled by the anticipated consequences of global warming in this ecologically sensitive region.

Interest in the region – largely dominated by pessimistic perspectives – has focused on identifying and understanding the likely effects of global warming. Although some observers continue to sound the alarm, forecasting a resurgence of power politics and inter-state conflict in the region, more optimistic images of the circumpolar world as an emerging zone of cooperation and collective management are also in the air. Building on the still-developing web of soft law multilateral arrangements already in place, there is a growing call to improve the conditions for cooperation in the Arctic at the bilateral and multilateral level either by renovating existing governance structures, or by creating new ones to manage common security and non-security challenges in the region.

With reference to the range of proposals for an Arctic Treaty, Timo Koivurova has suggested that the Arctic is a place for imagination and a source of inspiration[1], and it seems that this is equally relevant to the ques-

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[1] Timo Koivurova, "Alternatives for an Arctic Treaty – Evaluation and a New Proposal", RECIEL, Vol. 17, No. 1 (2008), p. 14.

tion of bilateral relationships in the region.

Although bilateral relationships exist between all of the Arctic states, we limit our focus in this paper to the Canada-US relationship, for several reasons. The potential for these two countries to develop a robust bilateral security regime in the North is enhanced by their long experience of working together, both for conflict management and to meet common challenges, and by the institutions they have jointly created to facilitate this close relationship. Particularly noteworthy is the fact that North American defence and security arrangements have evolved in many ways independently of European considerations, and this is likely to continue. Moreover, with reference to the Arctic region, despite some expressed concerns that unresolved conflicts and different attitudes towards the region may "well become severe enough to cause a considerable erosion of the 'special relationship'"[2], the historical record of cooperation between the two countries leads us to expect that they will apply their common experience to settle these conflicts in the North and create institutions accordingly. This points to the necessity of creating a new bilateral institution to manage common challenges in the North. As we will outline below, this idea is already "in the air", and many authors have offered blueprints for this new institution.

However, creating a new bilateral institution could prove to be more difficult than it would seem given the historical record of cooperation between the two countries. First, there *are* unresolved conflicts between the US and Canada that may impact on their ability to extend their bilateral arrangements northward, and for this reason, a focus on Canada-US relations may generate insights applicable to other bilateral relationships in the North on the question of conflict resolution. As discussed below, competing jurisdictional claims in the North over a small but potentially resource-rich area in the Beaufort Sea and the legal status of the increasingly ice-free Northwest Passage (NWP) are generally

[2] See, for example, Oran R. Young, "Canada and the United States in the Arctic: Testing the 'Special Relationship", *Northern Perspectives*, Vol. 15, No. 2 (1987), online: http://www.carc.org/pubs/v15no2/2.htm.

cited as the greatest sources of friction between the two countries in the North. Indeed, the issue seems to be intractable, and Canada and the US have effectively agreed to disagree – for the time being. But, as the strategic and economic significance of these disputed areas increases, some have argued that the matter of sovereignty rights in these Arctic waters will have to be resolved. Conflict, according to this line, is very likely, and would surely put to the test any bilateral relationship in the North.

At the same time, following an argument developed by Franklyn Griffiths[3], many observers of the bilateral relationship between Canada and the US are adopting the view that sovereignty can and should be 'set aside' so as to allow for cooperative measures to be taken in those areas that do not depend on resolution of the sovereignty question – northern shipping, environmental protection, exploration, and so on. Indeed, it may well be that a consensus is emerging with respect to this issue, as the setting aside of sovereignty is a prominent and creative feature of many recent proposals to enhance Canada-US cooperation in the North. Taken together with the history of cooperation between the two countries, there are grounds for cautious optimism with respect to Northern bilateralism between Canada and the US.

A second difficulty stems from the relationship that a new bilateral institution would have with the rest of the circumpolar world. Such an institution would have to be consistent with other bilateral or multilateral efforts to create a governance structure in the Arctic. Moreover, the project raises the possibility of excluding some important states (notably Russia) or non-state players (indigenous and regional governments). As we will see, these questions are a matter of debate among observers. Here again, though, while the task could prove difficult, there is room for a moderate degree of optimism, since these obstacles can be addressed prop-

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[3] Franklyn Griffiths, "The Shipping News. Canada Arctic Sovereignty not on Thinning Ice", *International Journal*, Vol. 58, No. 2 (Spring 2003), pp. 257-282; See also Andrea Charron, "The Northwest Passage Shipping Channel: Sovereignty First and Foremost and Sovereignty to the Side", *Journal of Military and Strategic Studies* Vol. 7, No. 4 (2005).

erly with a cautious approach.

This paper proceeds as follows. First, we provide a brief overview of the key challenges facing the US and Canada in the region, notably the conflict over the status of the Northwest Passage. Second, in the interest of context-setting, we review the history of the Canada-US bilateral relationship. Third, we consider some of the key proposals for bilateralism in the North, highlighting the trend towards 'setting sovereignty aside' in recent efforts to extend the Canada-US cooperative relationship into the Arctic region. Finally, we consider some of the challenges that potentially complicate the effectiveness of these proposals, some stemming from the implications of developing incremental or technical solutions to concrete challenges while leaving the underlying sovereignty issue unresolved, others related to tensions between the bilateral agenda and the broader multilateral frameworks, proposals, and norms. We conclude with the assertion that the development of a successful Canada-US bilateral regime in the North cannot occur without careful attention to the multilateral impulse in the Arctic.

Canada-US conflicts in the North

A key source of concern for many observers relates to the political and economic implications of a reduced Arctic ice cap. As is often suggested, an increasingly ice-free Arctic will certainly spur economic and shipping activity in the region; this development carries the potential for political conflict as states compete for access to the resources many expect will be discovered there. In light of this, some observers forecast a future Arctic in which the political map remains unclear, and conflicting claims divide the states of the region. There is some justification for these concerns, as evidenced by the international response to Russia's planting of a national flag under the North Pole. In many ways, the perceived necessity to 'show the flag' in support of territorial claims threatens to remilitarize the North, since armed forces are generally viewed as the most effective way of projecting a governmental presence in these remote areas. Even perspectives that eschew what we might describe as 'doom and gloom' scenarios in light of such developments warn that the emergence of the Arctic as a cooperative zone in the face of such pressures cannot be assumed and must instead

be carefully nurtured[4]. Undoubtedly, the implications that flow from melting ice in the Arctic underscore the importance of establishing multilateral agreements to ensure that economic development in the region is undertaken in safe and sustainable ways, and that competing claims to control over resources are mediated through legal and political mechanisms.

With reference to the prospect of an increasingly ice-free Arctic, there are several issues that have a particular bearing – and put particular pressures – on the Canada-US relationship. One of the most important implications of melting ice is the predicted increase of shipping within the Northwest Passage (NWP)[5]. This development is highly significant for several reasons. Increased shipping implies an increased human presence in area, and thus creates the necessity of developing safety measures, environmental protection standards, and emergency response capabilities in the event of a ship, air, or environmental accident. Also, environmental changes and increasing contacts between local populations and foreigners (which have had major impact on the former) reinforce the need to provide "human security" to sometimes transnational indigenous communities within a framework of sustainable development. Moreover, a growing human presence in the area can also be linked to the growth of organized crime (as in diamond extraction facilities), drug smuggling, the illegal movement of peoples, or even terrorist attacks on remote installations or tourist ships. However, these issues are arguably of secondary importance when considered alongside the fact that the legal status of the NWP is a

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[4] Scott G. Borgerson, "Arctic Meltdown. The Economic and Security Implications of Global Warming", *Foreign Affairs* (March-April 2008), pp. 63-77; Mark Galeotti, "Cold Calling - Competition heats up for Arctic Resources", *Jane's Intelligence Review*, on-line (Sept. 18, 2008); Rob Huebert, "Shipping News Part II. How Canada's Arctic Sovereignty is on Thinning Ice", *International Journal*, Vol. 58, No. 3 (Summer 2003), pp. 295-308. In contrast to these pessimistic scenarios, see the discussion of the 'Polar Preserve' and the 'Arctic Sage' scenarios developed by the Global Business Network in its report entitled *The Future of Arctic Marine Navigation in Mid-Century: Scenario Narratives Report* (2008), online: http://www.institutenorth.org/.

[5] It should be noted that there is no clear consensus as to the extent to which shipping will take place in the NWP, or if it will occur on meaningful levels at all in the foreseeable future. See Frédéric Lasserre, "High North Shipping: Myths and Realities about Arctic Shipping Routes," in this volume. See also the well-known exchange between Rob Huebert and Franklyn Griffiths; Franklyn Griffiths, "The Shipping News: Canada's Arctic Sovereignty Not on Thinning Ice", International Journal, Vol. 58, No. 2 (Spring 2003), pp. 257-282; Rob Huebert, "The Shipping News Part II …", op.cit.

matter on which Canada and the US do not agree. Clearly, attempts to manage the challenges noted above will be complicated in the absence of jurisdictional clarity. In this way, the prospect of increased shipping in the Passage puts a spotlight on an issue that Canada and the US have preferred to leave in the shadows for a range of reasons.

In popular discourse, the dispute over the NWP is frequently characterized as a sovereignty dispute, but this misrepresents what is at stake in this conflict. Canadian sovereignty over the islands of the Arctic Archipelago is not currently in dispute; rather, the issue turns on whether the waters between the islands constitute 'internal waters' (as Canada claims) or an 'international strait' (as the US claims). The underlying basis for the dispute relates to the different methods employed by Canada and the US to draw baselines around coastal territories – according to the Law of the Sea Convention, the seaward side of these baselines defines the sea, which is divided into the territorial sea (TS, 12 nautical miles from the baseline), the contiguous zone (CZ, 24 nautical miles from the baseline), and the exclusive economic zone (EEZ, 200 nautical miles from the baseline). The extent to which sovereign rights may be exercised becomes more limited from TS to CZ to EEZ, but in all cases, ships from any state have the right of innocent passage. Internal waters are those waters on the landward side of the baseline, and significantly, they are treated by international law as equivalent to a state's territory in terms of the sovereign rights of the state to regulate them. The practical implication of this designation is that vessels from other states do not have a right to innocent passage. Everything thus turns on where and how baselines are drawn; the Canadian claim that the NWP is 'internal water' is predicated on 'straight' baselines that effectively enclose a significant portion of the NWP. The US (and many other states) rejects this method of drawing long, straight baselines, and advances the argument that it is therefore an international strait connecting two bodies of water through which it has the right of passage.

The conflict over the status of the NWP is thus not properly a sovereignty dispute, but rather a dispute over the extent to which

Canada is able to claim sovereign rights in the NWP, and to deny passage to vessels at will. It is because of the unresolved status of the NWP that the prospect of its increased navigability becomes a key challenge to Canada-US relations in the Arctic. According to some Canadian authors, in the long run, the more that ships act as though the NWP is an international strait (and the more that Canada fails to prevent such action), the less compelling Canada's claims to the contrary become.[6] For this reason, any US transit through the NWP is a cause of tension and concern in Canada, as was the case in 1969-1970, and again in 1985, when American vessels crossed the Passage without Ottawa's formal permission. Moreover, as many observers have noted, since the "North" is central to the Canadian identity any challenge to Canada's claims receives wide attention among the public and puts pressure on the government. And, from the American perspective, the US has no choice but to remain firm on this issue because of the fear of creating a precedent that could be used in other situations where the US has strong strategic interests.[7]

A second, somewhat related but nevertheless distinct issue complicating Canada-US relations in the North is the border dispute between the two countries in the Beaufort Sea. As with the case of the NWP, the Beaufort Sea conflict is frequently framed as a sovereignty dispute, whereas it is more accurately understood as a dispute about sovereign rights over a triangle-shaped area of 6250[2] nautical miles. The issue stems from a disagreement as to how the border between Alaska and Yukon should be extended from the baseline through to the 200 nautical mile EEZ. The Law of the Sea Convention provides only general guidance on this matter. According to Eric LeGresley, "the result, rather than the means, is the dominant criterion for assessing the suitability of the boundary",[8] while

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[6] Rob Huebert, *op. cit.* (2003); Michael Byers, "Unfrozen Sea. Sailing the Northwest Passage", *Policy Options*, Vol. 28, No. 5 (May 2007), pp. 30-33.

[7] Charles F. Doran, "Canadian Relations with the United States", *Current History*, Vol. 87 (March 1988), p. 100.

[8] Eric LeGresley, "Law of the Sea Convention", Government of Canada: Law and Government Division, (February 1993); online : http://dsp-psd.communication.gc.ca/Collection-R/LoPBdP/BP/bp322-e.htm#c.%20The%20Beaufort%20Sea%20Dispute(txt)

the Convention itself requires little more than that equitable principles and relevant circumstances be taken into account.

From the Canadian perspective, the land border between Alaska and Yukon at the 141st meridian should simply be extended outwards to the EEZ limit. The US view is based on a principle of equidistance from the closest land point of each state. This method produces not a straight line extending from the land border, but rather a curved line that crosses over the Canadian side of the 141st meridian. In this instance, it truly is the result that is at issue for both Canada and the US, because the disputed area is believed to be rich in oil and natural gas resources that will become more accessible as ice retreats.

The disputes in the NWP and in the Beaufort Sea have no more than simmered up to this point, and flare-ups have been minimal and short-lived. Indeed, as discussed in the following section, the NWP issue in particular has been managed through an 'agreement to disagree' on the matter between the US and Canada, and for the most part, this has served both countries well. That said, it is important to appreciate the way that these historically relatively low-level disputes intersect with one of the key implications of melting Arctic waters - increasing economic opportunities that may well turn up the heat to resolve the question of sovereign rights in the NWP and the Beaufort Sea once and for all. How this pressure might affect prospects for Canada-US relations in the North is important to consider.

Canada-US cooperation

Canada and the United States have a long history of close cooperation.[9] Building on the legacy of the North American dimension of Anglo-American relations during the 19th century, Americans and Canadians cre-

[9] See Stéphane Roussel, *The North American Democratic Peace: Absence of War and Security Institution-Building in Canada-US Relations, 1867-1958* (Montréal and Kingston, McGill-Queen's University Press – School of Policy Studies, 2004); John Herd Thompson and Stephen J. Randall, *Canada and the United States: Ambivalent Allies* (Montréal, McGill-Queen's University Press, 2008, 4th ed.); William R. Willoughby, *The Joint Organizations of Canada and the United States* (Toronto, Toronto University Press, 1979).

ated their first bilateral conflict management institutions in 1908 and 1909, when the International Boundary Commission (IBC) and the International Joint Commission (IJC) on boundary waters were formed. In the realm of security and defence, the relationship shifted from conflict management to cooperation in August 1940, when the two governments created the Permanent Joint Board on Defence (PJDB). During the Cold War, many new institutions were created, including the Military Cooperation Committee (MCC) in 1946 and the bi-national air defence command (NORAD) in 1958. The two countries have continued to increase their cooperation since then. In 2006, the final report of the Bi-National Planning Group (BPG) listed a total of 851 defence agreements (most of them being Memorandums of Understanding rather than formal treaties) linking Canada and the US, the vast majority of which are still in force today.[10]

Cooperative undertakings in the Arctic began during the Second World War and continued throughout the Cold War. Canada and the US worked together, building numerous defence infrastructures, such as air bases, weather and radar stations, roads or pipelines. Minor tensions emerged in this relationship as concerns grew among Canadians officials that such close cooperation over Canadian sovereignty would create precedents in support of future American claims over Canadian Arctic territories. Overall, though, the two states arrived at mutually acceptable compromises on all issues involving land territories.[11]

Even in the Arctic, where the two countries face competing claims over sovereign rights, institutions were created. The "unauthorized" passage of the American Coast Guard ice-breaker *Polar Sea* prompted a series of negotiations that produced, in January 1988, the *Arctic Cooperation Agreement*. While the US "pledges that all navigation by US ice-breakers [in the NWP] will be undertaken with the consent of Canada (art. 3),"

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[10] Bi-National Planning Group, *The Final Report on Canada and the United States (CANUS) Enhanced Military Cooperation* (Peterson AFB, Co., March 13, 2006).

[11] Shelagh D. Grant, *Sovereignty or Security? Government Policy in the Canadian North, 1936-1950 (*Vancouver, University of British Columbia Press, 1988).

Canada agrees always to give that consent. Thus, in this way the document was essentially a formalized acknowledgement of the two countries' intention to 'agree to disagree' (art 4) on the matter of the status of the NWP.[12]

While Christopher Kirkey described the 1988 Agreement as providing "mutually satisfactory outcomes",[13] the underlying issue itself remains unresolved. However, this creates certain difficulties given the possibility of increased traffic through the NWP as the ice-free season is extended, and the common concerns that all Arctic states will have with respect to shipping regulations and safety measures, as well as security concerns regarding illegal activities.[14] Hence, there is a clear need to fulfil the institutional vacuum in the region.

Proposals to facilitate bilateral cooperation in the North

In light of the above, specialists are calling for a re-opening of the dialogue between Ottawa and Washington over Arctic waters management. All these authors take their inspiration from the Canada-US historical record of cooperation. A typical example can be found in Scott Borgerson's article published in *Foreign Affairs*:

> The United States should also strike a deal with Canada, leading to a joint management effort along the same lines as the 1817 Rush-Bagot Agreement, which demilitarized the Great Lakes and led to the creation (albeit more than a century later) of the non-profit St. Lawrence Seaway Development Corporation to manage this critical, and sometimes ice-covered, binational waterway. In the same spirit, the United States and Canada could combine their resources to help police thou-

[12] Christopher Kirkey, "Smoothing Troubled Waters: The 1988 Canada-United States Arctic Cooperation Agreement", *International Journal*, Vol. 50, No. 2 (Spring 1995), pp. 401-426; Rob Huebert, "A Northern Foreign Policy: The Politics of Ad Hocery " in Nelson Michaud and Kim Richard Nossal (eds.), *Diplomatic Departures*, *The Conservative Era in Canadian Foreign Policy, 1984-93* (Vancouver, UBC Press, 2001), pp. 93-94. For a recent presentation of the Canadian legal positions in this conflict, see Lt-Cmd Guy Killaby, "Great Game in a Cold Climate: Canada's Arctic Sovereignty in Question", *Canadian Military Journal*, Vol. 6, No. 4 (Winter 2005-2006), pp. 31-40.
[13] Kirkey, *op. cit*., pp. 416-422.
[14] Byers, *op. cit.* (2007).

> sands of miles of Arctic coastline. Washington and Ottawa now work collaboratively on other sea and land borders and together built the impressive North American Aerospace Defense Command, or NORAD, system. They are perfectly capable of doing the same on the Arctic frontier, and it is in both countries' national interests to do so.[15]

Building on the NORAD experience seems, at a first glance, to make sense. The institution is working pretty well – notwithstanding the disastrous failure of September 11th, 2001 and the acrimonious debate in Canada surrounding the role of the Command in the American antimissile defence system – and the two governments have agreed to renew it regularly since 1958.[16] Moreover, in 2002, Canada and the US created the Bi-National Planning Group to further enhance military cooperation between the two countries. This Group was tasked, among other things, to survey existing agreements on maritime defence and develop proposals to reinforce it. In its final report of March 2006, an expansion of the NORAD mission to include maritime warning was recommended.[17] This recommendation seems directed primarily towards the North American East and West coasts, and the Arctic is not mentioned; however, there is nothing to preclude the Arctic's inclusion in this recommendation. On the contrary, implementing a monitoring system in the Arctic may prove technically more feasible, since ships, constrained by the geography of the archipelago and the ice, necessarily follow more predictable routes than in the open seas of the Atlantic or the Pacific Oceans. As will be discussed below, it is clear that this possibility has been considered by several observers.

One of the first academic observers to propose a bilateral Arctic waters agreement was Franklin Griffiths. While his views about the form of the agreement remain vague, his vision is "to extend the 1988 Canada-U.S. icebreakers agreement to commercial vessels, and indeed warships, without prejudice to the position of either country in international law." He

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[15] Borgerson, *op. cit.,* p. 77.
[16] The agreement was renewed in 1968, 1973, 1975, 1980, 1981, 1986, 1996, 2001 and 2006.
[17] Bi-National Planning Group, op. cit., pp. 35, 42, C-8.

also proposes to create a "tripartite transit management authority governed by the United States, Canada and Denmark [to] regulate and support surface ship activities".[18] Griffiths recommends approaching the issue as a matter of internal security for the US, which is concerned by the possibility of a terrorist attack or other illegal activities in the region, pointing out that it would be in the interest of the US to see Canada keep full control of the strait rather than having to open it to any foreign vessel. The central idea in Griffiths' proposal is to put the sovereignty issue aside and address the Arctic issue through an indirect approach. Canadian sovereignty, according to Griffiths, is not at risk and will not be for the coming decades. Moreover, he adds, it could be ill-advised to frame the problem in terms of sovereignty, because it simply adds pressure where none need exist.

A second proposal came from a group headed by Michael Byers at the University of British Columbia. This group, which included researchers and former diplomats from Canada and the US, published its report in February 2008. As have many other observers, the members "acknowledg[ed] the long history of U.S.-Canada cooperation, including within NATO, NORAD, the 1988 Arctic Cooperation Agreement, and the Arctic Council [and] that the United States and Canada have previously cooperated to promote shipping through waters under national jurisdiction, namely the St. Lawrence Seaway, Great Lakes and Juan de Fuca Region, and that this has brought great benefits to both countries".[19] The report offers nine recommendations, reproduced below:

> 1. That the two countries collaborate in the development of parallel rules and standards and cooperative enforcement mechanisms with respect to notification and interdiction zones in the northern waters of Alaska and Canada;

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[18] Franklyn Griffiths, op. cit. (2003), pp. 271-272. See also Franklyn Griffiths, "Pathetic Fallacy: That Canada's Arctic Sovereignty is on Thinning Ice", Canadian Foreign Policy, Vol. 11, No. 3 (Spring 2004), p. 1-15.

[19] "Model negotiation on Northern Waters, February 19, 2008", online: http://byers.typepad.com/arctic/model-negotiation-on-northern-waters.html

2. The implementation of the 2006 expansion of the NORAD agreement, which includes the sharing of all maritime surveillance in the area covered by that agreement, and that the two countries cooperate in the development of further surveillance capabilities;

3. Building from the Arctic Waters Pollution Prevention Act, that the two countries develop common navigation, safety and ship operation and construction standards;

4. That the two countries cooperate on the establishment of shipping lanes, traffic management schemes and oil spill response in the northern waters of Alaska and Canada;

5. That the two countries cooperate with respect to immigration and search and rescue concerns related to cruise ships;

6. That the two countries accelerate the acquisition of new icebreakers. The two countries should maximize burden sharing opportunities, following the models of the U.S.-Canada icebreaker agreement on the Great Lakes and the agreement on the resupply of Thule Air Base;

7. That the two countries step up their efforts to develop safety infrastructure, including search and rescue, in support of increased shipping in the northern waters of Alaska and Canada;

8. That the two countries make maximum use of their existing port state and flag state authority to promote safe, secure and environmentally responsible shipping;

9. That the two countries consider establishing a U.S.-

> Canada Arctic Navigation Commission to address their common interests in navigation, environmental protection, security, safety, and sustainable economic development. This Commission should include representation from indigenous groups directly affected by navigation. This Commission would follow the model of the International Joint Commission by acting as a recommendatory body. This Commission should operate within the framework of the already legislated bi-national research body, the Arctic Institute of North America.

An important element of these recommendations is the broad spectrum of issues they address, from regulation to surveillance, search and rescue, immigration, shipping management and environment. But significantly, the group was not able to arrive at a consensus on the sovereignty issue, even while they acknowledged that "both countries have strong arguments".[20] Hence, *de facto*, the group operationalized the approach suggested by Griffiths, leaving sovereignty aside while making progress on "softer" issues.

Col. (ret.) Pierre Leblanc, a member of the Canadian team in the group, reinforces the argument with a rational evaluation of the benefits of cooperation. He underlines the fact that the two states have significant mutual interests in the region, including the strategic nature of the Arctic routes, the common need to protect the environment, the importance of energy resources and the shared vulnerability of the remote area in both Alaska and Northern Canada. Moreover, the US and Canada can secure high benefits with closer cooperation, namely lowering the costs, and sharing intelligence and resources. Leaving the sovereignty issue aside, he concluded that cooperation is possible and likely, even if the two governments disagree on this question.[21]

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[20] Randy Boswell, "Simulated Talks Show Possible Solution for Arctic Dispute", *National Post* (February 19, 2008).

[21] Col. (ret.) Pierre Leblanc, "Mutual Security Interests in the Arctic", Paper presented at the conference *Canada and the United States: What Does it Mean to Be Good Neighbours?* Canadian Defence & Foreign Affairs Institute, Ottawa (October 27, 2008).

Another proposal was developed by consultant Brian Flemming, who advocates the creation, by bilateral treaty, of a new international institution. This Northwest Passage Authority (NWPA) project is based on the model of the International Joint Commission, with the difference being "that the IJC is a 'deliberative' body, not an 'executive' international institution with the power to make and enforce the kind of strict regime that a NWPA would have to have to be effective".[22] Other sources of inspiration for the NWPA include the St. Lawrence Seaway Authority, which points to the "creation of a public-private Arctic seaway management corporation with a mandate to provide for the safe and secure transit of vessels in North American Arctic waters while protecting the area's sensitive environment",[23] as well as the 1988 Arctic Cooperation Agreement.

While Flemming remains flexible about the shape of the new institution, his proposal contains some important elements. On the question of sovereignty, he seems to agree with Griffiths and recommends leaving the issue aside – although not completely, as he argues that "the negotiation of the NWPA treaty should also include a negotiation of the disputed dividing line between Canadian and American territory in the Beaufort Sea." Flemming's envisioned NWPA

> would require Canada to set aside, but not give up legally, its claim that most of the Passage lies within Canada's internal waters. On the American side, there would have to be a suspension, but not a legal surrender, of the U.S. claim that the Passage is an 'international strait' under international law. The setting aside of these current claims could herald a renewed, 21st century period of cooperation between Canada and the United States.

Another important element of Flemming's proposal is to bring "the territorial governments of Nunavut, the North West Territories and the

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[22] Brian Flemming, "Canada-US Relations in the Arctic: A Neighbourly Proposal", paper presented at the conference *Canada and the United States: What Does it Means to Be Good Neighbours?* Canadian Defence & Foreign Affairs Institute, Ottawa (October 27, 2008).
[23] Flemming, quoting Borgerson, *op. cit.*.

Yukon – plus the state government of Alaska" – around the table. In his view, the Inuit people should play "a major role in helping shape the final form of this new international institution", and their participation "will be fundamental to making the initiative work on both sides of the table". On this question too, Flemming is close to Griffiths, even if the latter was making a recommendation at the national, rather than international level.

Canada-US bilateralism in the North: promise and obstacles

When considering these proposals, certain common features are evident. Most obviously, they are all rooted in an appreciation of the strong historical experience of cooperation between the United States and Canada. Informing these proposals, therefore, is an underlying expectation that this historical pattern of cooperation can be repeated in the Arctic. Second, a consensus seems to be emerging around the necessity of leaving the sovereignty issue aside, at least regarding the Northwest Passage. Moreover, despite the pessimism shown by some authors, there is no emergency to force its resolution in the short term. Indeed, addressing the sovereignty issue in a direct way could launch a spiral of conflict that would block progress on other fronts of cooperation, whereas progress on these other fronts could potentially pave the way in the longer term for a resolution of the sovereignty issue. Taken together, these proposals reflect the sense that the sovereignty issue is not necessarily a 'deal breaker' when it comes to the development of a Canada-US bilateral relationship in the North. Indeed, as Julia Jabour and Melissa Weber note, "positive outcomes…have occurred coincidentally with the assertion of sovereignty and yet indifferently to this assertion" in the development of both bilateral and multilateral instruments in the Arctic.[24]

Nevertheless, these proposals are not without their limitations. Among the most significant is the lack of explicit attention paid to the question of the relative merits and potential effectiveness of bilateral versus multilateral solutions to Arctic challenges. Many observers are of the view that many of the core challenges facing the Arctic states require a

[24] Julia Jabour and Melissa Weber, "Is it Time to Cut the Gordian Knot of Polar Sovereignty?" RECIEL, Vol. 17, No. 1 (2008).

multilateral approach in order to be truly effective. As Rob Huebert warns,

> Continental shelf claims need to be resolved by all four claimant states, just as the problems of increased shipping in the Northwest Passage and environmental risks to the Arctic Ocean should be resolved multilaterally. Bilateral solutions would give rise to a patchwork of shipping regulations and environmental standards, which would be unworkable.[25]

However, it is equally possible to advance an opposing view, one which takes seriously the potential of building multilateral arrangements on the foundation established by bilateral agreements. In the face of Huebert's fears of an 'unworkable patchwork,' Brian Flemming suggests that a "Canada-U.S. treaty could be framed in such a way as to allow other "Arctic Powers", including especially Russia, to adhere to it in some way, either as a full Party or as a Party with less than Contracting Party status." Flemming concludes that, "[i]t may be better to get the simpler, easier Canada-U.S. NWPA treaty done and then allow other interested states, most importantly Russia, either to accede to the NWPA treaty, or to negotiate parallel bilateral treaties that, together, would add up to a consistent and legally viable regime".[26]

None of this necessarily implies an 'either/or' logic, although some observers point to the challenges that would be associated with attempts to make simultaneous progress on bilateral and multilateral arrangements. As Flemming notes, "[w]hether a corporate model could be created while Canada and the U.S. were attempting simultaneously to negotiate a multilateral treaty among all the Arctic powers for settling the many claims and possible disputes that might arise in the Arctic may be a bridge too far".[27] Thus, it may be that it is necessary to focus in the short term at least on

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[25] Rob Huebert, "Canada and the Changing International Arctic: At the Crossroads of Cooperation and Conflict", pre-released chapter in Frances Abele, *et al.* (eds.) *Northern Exposure: Peoples, Powers and Prospects for Canada's North* (Institute of Research on Public Policy, Ottawa, Canada, September 2008), p. 22, online: http://www.irpp.org/research/re_aots.asp

[26] Flemming, *op. cit.*

[27] *Ibid*.

either the bilateral or the multilateral context, and it is not clear where the greatest benefits – or obstacles – lie. Notwithstanding Flemming's view that it might be most effective to adopt an incrementalist approach to Arctic governance based on potentially expandable bilateral agreements, there remains the possibility that a focus on bilateral arrangements might actually work at cross-purposes to the development of multilateral arrangements. Consider, for example, Rob Huebert's assessment of the dilemma:

> [A bilateral approach] could…result in Canada offending a neighbour. For example, by entering into direct negotiations over the continental shelf with Russia, Canada could easily cause the US to feel slighted; or if Canada were to negotiate with the US and Denmark, the Russians could interpret it as an instance of NATO allies ganging up on them.[28]

But on this point too, counter-arguments can be made; Flemming disagrees with Huebert on the risk of marginalizing Russia, suggesting that "[o]ddly enough, such a bilateral treaty might even be welcomed by Russia which believes its North East Passage is more likely to become an international shipping route than the Northwest Passage".[29]

Huebert is probably overly-pessimistic about another problem he anticipates with a bilateral approach arising from the imbalance of power between Canada and the US or Russia. In fact, history tends to prove the opposite: over the 19th and 20th centuries, Canada-US relations improved even while the power imbalance between them increased after the withdrawal of the British forces from North America and gradual evaporation of Canada's links with British Empire.[30] But the historical record reveals another problem related to the difficulty of making bilateral arrangements alongside multilateral ones.

Contrary to the image of a strong transatlantic link, relations

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[28] Huebert, *Canada and the Changing … op. cit.*
[29] Flemming, *op. cit.*
[30] See Roussel, *op. cit.*

between North America and Europe have not been particularly close, especially on security and defence issues. While Americans (and Canadians) were strongly committed to the defence of Western Europe during the Cold War, this relationship was not reciprocal. To the contrary, European allies were kept away from the defence of the North American continent. Americans were reluctant to cede any control of their nuclear deterrence system to their European allies, while Canadians feared that the establishment of a NATO strategic command in North America would simply result in placing their forces under American command. Hence, the defence of the two continents evolved independently, with NORAD clearly separated from NATO.[31] The same could be said on the security side; while the Europeans created the Schengen Space to manage common immigration issues after the opening of their borders, Canada and the US created an informal security perimeter that remains totally distinct from its European counterpart.[32]

The same divergence could appear in the Arctic in that the extension of bilateral security arrangements in the North could leave little space for multilateral undertakings. Put differently, the more NORAD becomes involved in security activities in the North American sector of the Arctic, the less likely it becomes that NATO will be involved in the same sector. In this way, the separation between NATO and NORAD observed in other sectors could be reproduced in the North. Moreover, while Americans and Canadians might be willing to participate in multilateral arrangements to manage the various problems emerging in the region, they also want to retain the freedom to manoeuvre, for different reasons. For example, America's participation in the Arctic Council was very much contingent upon the exclusion from the mandate of the Council of any elements that might interfere with their activities (especially military ones). Canadians face a similar dilemma, since any multilateral treaty designed to deal with navigation issue that bears legal obligations could force the delicate issue of sovereignty. According to Suzanne Lalonde,

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[31] *Ibid*., pp. 204-210.

[32] For a comparison of the two "perimeters", see Michel Fortmann, Alex Macleod and Stéphane Roussel (eds.), *Vers des périmètres de sécurité? La gestion des espaces continentaux en Amérique du Nord et en Europe* (Montréal, Athéna, 2003).

> barring the adoption of a specified multilateral Arctic treaty, international law provides a choice between only two possible navigational regimes for the Northwest Passage and these two regimes are poles apart. The Passage is either subject to the Canadian legal regime or it is governed by the international legal system.[33]

Tasking a "Maritime NORAD" with a mandate to monitor the Arctic waters is not without technical difficulties akin to those affecting the maritime mandate as a whole. First, contrary to the air and aerospace dimensions of its mandate, the Command does not have the capability to directly monitor the surface of the ocean, nor therefore to track suspect vessels. Moreover, and still contrary to NORAD's air mission, the Command is not able engage in interception on its own. In an important way, then, the "maritime NORAD" remains essentially a function of information sharing. While certainly important, it is clear that such a mandate could not presently meet the expectations of the authors presented above.

Rob Huebert has written that "the challenge before anyone who wishes to consider the different threats to security in the Arctic is to determine what is the nature of the threat; who is being threatened?; and what are the best means of responding to the threat?"[34] This challenge is relevant to the question of developing Canada-US bilateral security arrangements in the North because Ottawa and Washington do indeed have sometimes divergent answers to the questions posed by Huebert.

Reflecting on the divergent debates about Arctic security, it is clear that the development of a coordinated bilateral Arctic policy faces significant challenges. However, it is illustrative to consider, for example, the question of when the Northwest Passage is expected to be sufficiently ice-free so as to allow for summertime shipping. Focusing only on the

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[33] Suzanne Lalonde, "Arctic Waters: Cooperation or Conflict", *Behind the Headlines* (July 1, 2008), p. 8.
[34] Rob Huebert, "Arctic Security: Different Threats and Different Responses – A Discussion Paper", (n.d.) available at
www.nrf.is/Publications/The%20Reslient%20North/Plenary%204/3rd%20NRF_Plenary%204_PP_Huebert.pdf

Canadian perception of this issue, we might expect that a question such as this would have an uncontroversial, fact-based answer. And yet, timeline projections vary widely; by some accounts, the Passage will be navigable as early as 2030, while according to others this will not occur until the end of the century.[35] Disagreements within the scientific community are amplified when divergent scientific studies inform Canadian policy. For example, as O'Neil[36] reports, the urgency of the Department of National Defence's call for a deep-water port in the Arctic and for armed icebreakers is informed by predictions which envision a navigable Northwest Passage as early as 2015. This timeline is echoed in the *International Policy Statement* produced by the Department of Foreign Affairs (2005) and is the basis for a call for increased surveillance in the Arctic; however, it is not the position taken by Environment Canada. Thus, even while there may be agreement that Arctic ice is melting (although the cause of this is also subject to multiple interpretations ranging from 'natural climate cycles' to human activity), there exist divergent understandings of the timeline for this process – even within the departments and agencies of the Canadian government. If surveillance or the establishment of a deep-water port are to be components of a policy response, how urgent is this need? What resources are needed, and when?

This is further compounded not only by the fact that a similar divergence of views will be found among American policy-makers and scholars, but also by competing understandings of the implications that flow from an increasingly navigable Northwest Passage. Beyond the sovereignty question, for some, the issue might be related to trafficking in people and drugs, for others the key challenge is framed as one of protecting indigenous peoples and the local environment from the effects of increased traffic in the region.[37] Moreover, it must be borne in mind that despite some clear interests in common, Canada and the US are very different countries

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[35] Peter O'Neil, "Experts Skeptical of Canada's Northwest Passage", *Vancouver Sun* (August 12, 2006); for discussion of competing predictions and scenarios, see Lasserre, *op. cit.*

[36] O'Neil, *Ibid*

[37] Patricia Bell, "Arctic Waters Must be Protected from Increased Traffic: Inuit", *CBC News* (August 26, 2006), available at http://www.arcticnet-ulaval.ca/index.php?fa=News.showNews&home=4&menu=55&sub=1&id=243

in terms of their approach to Northern issues. For Canadians 'the North' is part of their national identity, and any perceived threat against Canada's 'true north' is likely to provoke an emotional and counter-productive reaction. These identity concerns must be taken seriously, since the emotional response to any perceived "threat" could paralyze the government response. As polls show, Canadian public opinion tends to perceive the US as the main source of concern in the North and tends to support unilateral initiatives rather than bilateral ones. This is not the case in the US – with the exception of Alaska. At best, it is safe to say that the vast majority of American leaders don't nurture strong bonds with the North.

Indeed, as S. Jeff Burchall has argued, the debate is characterized by a "sense of alarm" about melting ice which "cloud[s] the real issues"[38] affecting the Arctic; however, if melting ice is not the 'real issue', there is no agreement about what this might be. Again, the question of how to respond to a problem that is not universally recognized as 'a problem' is highlighted. The challenges for bilateral (or multilateral) cooperation in this context are clear – if there is no agreement about causes or timelines, about solutions or implications, the development of a unified policy response is impossible, not only nationally, but regionally.

Conclusions

Proposals calling for the creation of a new bilateral institution certainly make sense from a rational point of view. Based on the preceding discussion, however, the optimism that stems from the historical record of cooperation between Canada and the US, along with the growing practice of setting sovereignty to the side, must be tempered with a degree of caution. Taking this into account, several observations can be derived. First, it is clear that any Canada-US bilateral initiative must steer clear of the sovereignty issue (at least, related to the NWP), as this issue dramatically reduces the prospects for a bilateral agreement. Second, at the same time, any bilateral institution must be carefully designed to take account of the

[38] S. Jeff Burchall, "Canadian Sovereignty: Climate Change and Politics in the Arctic", *Arctic*, Vol. 59, No. 2 (June 2006), p. 3.

range of multilateral arrangements already in place in the North, and the potential tensions between bilateral and multilateral arrangements must be considered.

None of this means that bilateral initiatives are necessarily bound to fail. But it does mean that a prudent approach is required, an approach that focuses on very limited, technical (hence non-political) issues, such as search and rescue, shipping monitoring, environmental disaster response, or human security problems. Moreover, it is probably easier and safer to aim at a very simple agreement (such as Memorandum of understanding rather than a formal treaty that establishes general principles and long-term objectives.

Such an approach offers multiple advantages. First, low profile initiatives allow the actors to circumvent the delicate issue of sovereignty and, eventually, avoid the emotional reaction that even a benign incident or a misunderstanding can trigger. Second, in the same vein, these are less likely to be perceived as "threatening" or "exclusionary" by non-member states. Finally, initiatives that are limited in scope could always serve as a basis for future, more ambitious, proposals. In this sense, they can be considered intermediate steps in a longer process.

In an ideal world, a comprehensive, multilateral treaty remains certainly the most effective option for resolving the conflicts in the region and addressing the huge challenges caused by global warming. But at the time of writing, such a comprehensive agreement remains unlikely; in this context, the prospects for developing limited bilateral accords, despite their weaknesses, merits further attention.

THE HIGH NORTH LEGAL-POLITICAL REGIME

Alf Håkon Hoel*

Introduction

Increasing demand for natural resources and climate change combine to bring the Arctic high onto the international political agenda. At the same time, northwards expansion of petroleum activities, significant fisheries, and the climate change driven reductions of sea ice in the central Arctic Ocean raise questions concerning the governance of the oceans in the region.[1]

The institutional architecture of the Arctic oceans is a legal and political order dominated by state sovereignty and jurisdiction, embedded in a number of international agreements with the 1982 Law of the Sea Convention as its cornerstone. Also, political cooperation is important in the Arctic, particularly in the Arctic Council, which addresses a wide range of current concerns for the region.

This contribution addresses the question of governance and jurisdiction in the Arctic: who can decide what where? On land this issue is settled. The land boundaries between the countries in the Arctic are agreed.[2] The remaining jurisdictional issues concern the oceans. The Arctic region is not special in this regard: there are some 400 potential major marine boundaries in the world, and less than half of them are

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[1] See, for example, S.Borgerson, "Artic Meltdown", Foreign Affairs 87, No 2 2008, and C. Harrington, "Eyeing up the New Artic: Competition in the Artic Circle", *Jane's Defense Weekly*, 23 January 2008.

[2] There is a minor exception: Hans Island, an islet in the Nares Strait between Greenland and Canada, is disputed between the two countries.

resolved.[3] The five littoral states in the Arctic Ocean - US, Russia, Norway, Denmark/Greenland, and Canada - have affirmed their commitment to the Law of the Sea and the orderly settlement of overlapping claims.[4] The paper also discusses the role of the Arctic Council, before concluding with some observations on potential implications of climate change for the governance of the oceans in the region. First, however, a brief primer on the Arctic.

The Arctic

There are a number of different definitions of the Arctic and considerable confusion about what it is. Among the definitions commonly referred to, we find a) the areas north of the 10 degree C isotherm for July, b) the Arctic Circle (at 66^{o} 33´), and c) a still wider region which includes more of Northern Scandinavia and the oceans bordering the Arctic ocean (figure 1). These are vast areas. The central Arctic Ocean to the north of

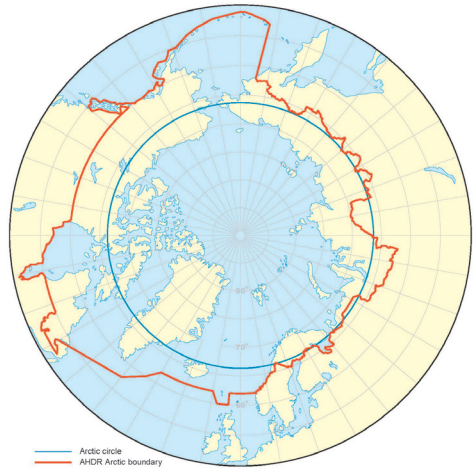

Figure 1: The map shows the entire Arctic region. The Arctic Human Development Report Boundary is shown in red. The map is accessible at the Arctic Council website, at http://arctic-council.org/section/maps_and_photos

[3] D. Anderson, "Negotiating Maritime Boundary Agreements: A Personal View," In R. Lagoni and D. Vignes, (eds): *Maritime Delimitation*, Koninklijke Brill N.V. 2006, p. 122,

[4] Ilulissat Declaration of 25 May 2008. Can be accessed at the homepage of the Danish Ministry of Foreign Affairs: http://www.um.dk/NR/rdonlyres/BE00B850-D278-4489-A6BE-6AE230415546/0/ArcticOceanConference.pdf

the continents, for example, is 14 million square km, or about 25 times the size of the North Sea or 10 times the Barents Sea. The latter definition reflects the understanding currently used in the Arctic Council, and represents an area of about 30 million km^2, or almost three times the size of mainland Europe. Only 4 million people live in the region.[5]

The issue of definitions is important for at least three reasons: first of all because it is important to circumscribe the phenomenon we are trying to examine and understand. Second, the wider definitions make the Arctic more significant in economic terms, as current economic activities basically take place in the oceans surrounding the central Arctic Ocean. And third, the wider the understanding of what the Arctic is meant to comprise geographically, the less uniform the region is - thereby losing the defining characteristic of regionality: common geographic, political and cultural references.

The political geography of the Arctic is defined by the land territories of the eight Arctic countries and their maritime zones. The status and extent of the various maritime zones are defined by the Law of the Sea (see below). A particular feature of the Arctic Ocean is the wide continental shelves, which are widest off Russia. Another defining feature is ice coverage. The entire central Arctic Ocean is ice-covered in winter. Recent years have seen an increasing area of open ocean in late summer due to global warming, and climate models predict that the central Arctic Ocean may be ice-free in summer some decades into the future.[6]

The Arctic Ocean to the north of the continents is not a major arena for commercial economic activities today, as the area is ice-covered during most of the year. Fisheries are mainly found in the seas bordering the Arctic Ocean, the Bering Sea and the Barents Sea, and the areas around Iceland and off Greenland. These fisheries are globally significant, accounting for about 10% of the global production of fish for human con-

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[5] http://arctic-council.org/section/the_arctic_council

[6] ACIA, *Arctic Climate Impact Assessment*, Cambridge University Press, 2006, Cambridge.

sumption.[7] There are commercial shipping activities in the high Arctic, in particular along the Northern Sea route to the north of Russia.[8] In recent years ship-based tourism has also been on the increase in certain areas. As to petroleum, most of the activity in the Arctic today is onshore, and the Russian Arctic is by far the most important area. Offshore activity is expected to gain in importance, and again the Russian Arctic will be the most important, with substantial offshore fields planned for development.[9]

The law

International ocean law lays down the rules for how the oceans and the natural resources there - including the oceans in the Arctic - are to be administered and used. The 1982 Law of the Sea Convention,[10] which was negotiated 1974-1982, came into force in 1994. Currently, more than 150 countries have acceded to the treaty. All Arctic countries except the US have ratified it and are bound by its provisions. In addition to the Convention, other international treaties and customary international law also constitute the Law of the Sea. Among the more important treaties in the Arctic context are the 1958 Continental Shelf Convention (in force since 1964), additional instruments for deep seabed minerals (1994 Agreement relating to the implementation of Part XI of the Convention), and high seas fisheries (the 1995 UN Fish Stocks Agreement),[11] and the shipping-related treaties of the International Maritime Organization (IMO). It should also be noted that the UN General Assembly (GA) adopts annual resolutions on oceans and fisheries, providing guidance to the international community for implementation of the law of the sea.[12]

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7 A. H. Hoel and H. Vilhjamsson, "Arctic Fisheries", in M. Nutall (ed), *Encyclopedia of the Arctic*, New York and London: Routledge 2004,", pp. 635-41

8 The most up-to-date and authoritative account is provided by the Arctic Council Arctic Marine Shipping Assessment, which can be accessed at http://arcticportal.org/amsa

9 The most comprehensive introduction to oil and gas activities in the Arctic is the Arctic Council AMAP Oil and Gas Assessment, at http://www.amap.no/oga/

10 United Nations Convention on the Law of the Sea, Montego Bay 10 December 1982.

11 Agreement for the implementation of the provisions of the Convention relating to the conservation and management of straddling fish stocks and highly migratory fish stocks. See: http://www.un.org/Depts/los/index.htm.

12 See: http://www.un.org/Depts/los/general_assembly/general_assembly_resolutions.htm

The rules of this global ocean regime essentially provide the answers to the question posed at the outset here: who can decide what where? The single most important aspect of the development of ocean law during the post World War II period is the extension of coastal state jurisdiction. The 1982 Convention establishes that coastal states have sovereign rights over natural resources in a 200-nautical mile (370-kilometer) *Exclusive Economic Zone (EEZ)*, calculated from the baselines, and including territorial waters (figure 2). Here, the coastal states have sovereign rights over natural resources and can decide how these resources are to be managed and used. Coastal states also have obligations to manage resources sustainably and to cooperate with other countries to this end.

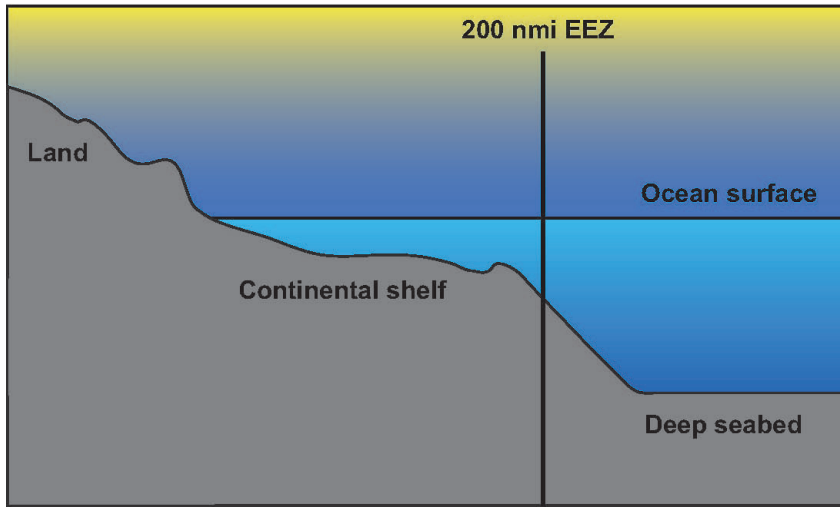

Figure 2: The figure shows the major maritime zones. Source: Alf Håkon Hoel

Beyond the EEZ are the *high seas*, where the principle of the freedom of the high seas reigns, with flag state jurisdiction rather than jurisdiction based on territoriality. In other words, it is the flag state that has jurisdiction over vessels operating there.

The 1982 Convention makes an important distinction between the

water column and the continental shelf. The latter is the natural extension of the land territory beyond the territorial waters. While coastal state jurisdiction over the water column ends at the 200- mile boundary, its jurisdiction on the continental shelf extends to the continental margin, the point where the continental slope becomes deep seabed. In other words, the rights of the coastal state over the continental shelf extend beyond the EEZ. Coastal states have to submit information on the limits of the continental shelf beyond 200 nautical miles to the United National Continental Shelf Commission set up by the 1982 Convention. The Commission then makes recommendations to coastal states on matters related to the establishment of those outer limits. The Convention states that "The limits of the shelf established by a coastal State on the basis of these recommendations shall be final and binding."[13]

In the areas beyond the continental shelves, the deep seabed, the 1982 Convention establishes that the mineral resources on and in the deep seabed are the common heritage of mankind. Their exploitation, which up until now has been very limited, is administered by a body set up by the Convention, the International Seabed Authority.

A pertinent issue in the Arctic is whether a strait can be considered an "international strait". An important element in arriving at a compromise text on the 1982 Convention was to retain the high seas freedom of navigation in straits that were important to international shipping and military vessels. The convention therefore provides that in certain circumstances what would otherwise be internal waters or territorial waters are "international straits" where the freedom of navigation can be exercised, subject to certain limitations. The coastal state cannot therefore regulate shipping in international straits as it can in its internal and territorial waters.

Regarding delimitation of marine boundaries between countries, the basic rule is that delimitation shall be by agreement between the inter-

[13] Article 76.8.

ested states. Beyond that, and "unless another boundary line is justified by special circumstances", the 1958 Continental Shelf Convention requires boundary solutions to be based on an equidistance principle. The 1982 Convention emphasises that boundary solutions are to be "equitable". Exactly what "equitable" means is not easy to establish, but state practice and cases before the International Court of Justice indicate that, between opposing coasts, an equidistance line modified by geographical circumstances is the rule.

States may also decide to resolve boundary issues by judicial procedures. One option is to contest the resolution before a court, the International Court of Justice or the Tribunal on the Law of the Sea established by the Convention. Another option is that the states involved agree to establish an arbitration panel to develop and propose solutions. The basic rule again, however, is that states must exhaust all avenues for arriving at a negotiated solution before resorting to judicial procedures.

Jurisdiction in the Arctic

The jurisdictional issues in the Arctic marine realm are many and complex.[14] Briefly stated, the situation is first of all that a number of boundaries remain unresolved. This is, as pointed out above, not unique, but rather a reflection of the global situation.

For the purpose of this paper, a distinction can be made between three sets of issues: the bilateral issues between countries in the region regarding boundaries between their marine areas the issues pertaining to the central Arctic Ocean, and the question of straits.

a. Bilateral EEZ and continental shelf issues:

Based on the definition of the Arctic used in the Arctic Council, there are 8 bilateral marine boundary issues, or rather issue complexes, between countries in the region:

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[14] For an in-depth treatment of the issue, see: A. Oude Elferink and D. Rothwell (eds), *The Law of the Sea and Polar Maritime Delimitation and Jurisdiction,* London, Martinus Nijhoff Publishers, 2001.

Russia-US: Bering Sea
US-Canada: Beaufort Sea
Canada-Denmark/Greenland: Davis Strait
Denmark/Greenland-Iceland: Fram Strait
Denmark/Greenland-Norway: Jan Mayen
Denmark/Greenland-Norway: Svalbard
Iceland-Norway: Jan Mayen
Norway-Russia: Barents Sea

Norway's involvement in a relatively high number of issues stems from its sovereignty over one island and an archipelago in the Arctic, Jan Mayen and Svalbard, which have boundaries with other countries.

Several of these issues are rather issue complexes, consisting of a number of elements, rather than one-dimensional problems. For example, different segments of a boundary line may be subject to separate procedures and agreements. Here, they are treated as one.

Moving East to West, in the Bering Sea the US and Russia agreed to a delimitation line in 1990 and the US ratified the agreement the following year. Russia however has not ratified the treaty,[15] which is therefore not in force. In the high seas area beyond the two EEZs, fisheries are regulated by a 1992 agreement (moratorium on pollock fishing). The United States would be better off with a median (equidistance) line between the two continents; the agreed line in the 1990 agreement is a compromise between the median line and a sector line. The boundary line runs from the Bering Sea into the Arctic Ocean and is 2575 kilometres long.

In the Beaufort Sea, the boundary line between Canada and the US has not been drawn and active talks toward that end are not being held. The Canadian position is that the boundary should run along the sector meridian at 141° W, while the US favours an equidistance (median) line bound-

[15] The Russian position on all its Arctic boundary issues is essentially determined by a 16 April 1926 Decree in which the Soviet Union claims all lands and islands in the Arctic Ocean sector between 32° 34′ E and 168° 4′W.

ary. The resulting disputed area is 22,600 km^2.

Canada and Denmark/Greenland agreed to a continental shelf boundary between Canada and Greenland in 1973. The boundary runs through the Davis Strait and Nares Strait into the Arctic Ocean. The agreement draws a line of 2683 kilometres, broadly based on the equidistance principle. A minor dispute remains over a small gap in the Kennedy Channel due to disagreement over Hans Island.

Denmark/Greenland and Iceland agreed to a continental shelf boundary and fisheries zone delimitation in the Fram Strait in 1997. The agreement is based on an equidistance line, and runs from 63 18´ N to 69 35´, some 700 kilometres.

Denmark/Greenland and Norway have two boundary issues which are both resolved. One is the boundary between Greenland and Jan Mayen (annexed by Norway in 1929); the other is the boundary between Greenland and Svalbard (Norwegian sovereignty by international treaty in 1920). The first was resolved by a decision by the International Court of Justice in 1993, followed by a bilateral agreement in 1995. The boundary takes the median line as the point of departure for delimitation, but is adjusted to take geographical circumstances into account. The boundary between Greenland and Svalbard was agreed in 2006, based on an equidistance principle. The boundary line runs 800 kilometres to 83 43´ N and pertains to the continental shelf as well as to the water column.

The Norwegian island of Jan Mayen is situated to the north east of Iceland, with 290 nautical miles between the baselines. The fisheries zone of Jan Mayen and the Icelandic EEZ therefore had a substantial overlap. Iceland and Norway negotiated two agreements in 1980-1981. The 1980 agreement contains provisions for fisheries management. Following the recommendations of a conciliation commission, the 1981 agreement gives Iceland a full EEZ and defines the seabed area 45,000 km^2 (two thirds on the Norwegian side of the boundary), where hydrocarbons are subject to joint development and sharing of benefits (one quarter in the other zone).

In the Barents Sea, Norway and Russia have held talks over the delimitation of a boundary since 1974. Norway's position is that the boundary line is to be drawn according to the equidistance line principle, while Russia advocates a boundary drawn according to the sector principle (see the 1926 decree). The resulting disputed area is 175,000 km^2, running from the outer limit of the territorial waters, between Svalbard and Novaya Zemlya and into the Arctic Ocean. The continental shelf covers the entire Barents Sea, and is believed to harbour significant amounts of petroleum. As to the water column, an area of 55,000 km^2 is high seas. The boundary for the territorial waters in the Barents Sea is agreed. In the disputed area, a provisional arrangement for enforcement of jurisdiction in fisheries - "the Grey Zone" - was agreed in 1978.[16]

The Svalbard archipelago is part of the kingdom of Norway and under Norwegian sovereignty. There are different views about the geographical scope of the equal treatment and tax provisions of the 1920 Svalbard Treaty.

The total picture as regards bilateral boundaries in the Arctic, then, is as follows:
(resolved = final agreement arrived at and ratified):

	Resolved	Unresolved
1 US-Russia Bering		x
2 US-Canada Beaufort		x
3 Canada-Greenland Davis Strait	1973	
4 Greenland - Iceland	1997	
5 Greenland - Norway Jan Mayen	1993, 1995	
6 Greenland-Norway Fram Strait	2006	
7 Iceland - Norway Jan Mayen	1980, 1981	
8 Norway - Russia Barents Sea		x

Figure 3: Arctic EEZ boundaries

[16] The Grey Zone also includes some areas in undisputed Norwegian and Russian waters, more so on the Norwegian side.

There are three major bilateral boundaries that are not drawn thus far: in the Bering Sea between Russia and USA, in the Barents Sea between Norway and Russia, and in the Beaufort Sea between Canada and the US. It is important to bear in mind that most of these issues rather are issue complexes, and that boundaries may be constituted by several agreements.

b) *The Arctic Ocean*

As to the areas within national jurisdiction in the Arctic Ocean, the five littoral states are entitled to EEZs there. The high seas in the Arctic, beyond national jurisdiction, are in four areas: the area to the north of the maritime zones of the five littoral states in the central Arctic Ocean, the so-called "Loophole" in the Barents Sea, an area in the Norwegian Sea, and the "doughnut hole" in the Bering Sea (figure 4).[17]

Figure 4: The three high seas areas in the North Atlantic. In addition there is a high seas area in the Bering sea. Northeast Atlantic Fisheries Commission, www.neafc.org

[17] For a good overview of the agreements regulating high seas fisheries in these areas, see O. S. Stokke (ed), *Governing High Seas Fisheries*, Cambridge, Cambridge University Press 2001.

As pointed out above, where the continental shelf extends beyond the 200 nautical mile limit, the coastal states have sovereign rights over the resources on and in the continental shelf. The issue here is the determination of the outer limit of the shelves, not jurisdiction over the shelves themselves. The Law of the Sea Convention defines a procedure for the definitions of the outer limits of shelves based on sediment thickness and topography. The first submission from a country in the Arctic region was made by Russia in 2001, and Norway was second with its submission in 2006. Canada and Denmark are expected to make their submissions in 2009 and 2014 respectively. The US has not ratified the Convention and is therefore, for the time being, not part of the process.[18] It is the requirement in international law that drives the current work of the Arctic countries to assert their rights over the continental shelves in the Arctic. This is a global process, with a number of coastal states worldwide being in a position to claim extended continental shelves.

Extensive media coverage was given in summer 2007 to a Russian expedition planting a metal flag on the sea floor at the North Pole, some 4,000 meters deep. This act has no legal significance; the point in this context is that Russia follows the procedures laid down in international law,[19] and that the other countries in the region also play by the internationally agreed rules in this regard.

Not only the 5 littoral states have explicitly stated commitment to the law of the sea and the orderly settlement of overlapping claims.[20] A recent review of Arctic Ocean governance notes that the "… past and present conduct of the Arctic littoral states has been predominantly in accor-

[18] The Convention was recommended for ratification by the Clinton administration and later by the second Bush administration. But it is still sitting in Congress awaiting ratification, because of opposition by some senators.

[19] A point repeatedly stressed by Foreign Minister Lavrov, for example, in a 26 February 2009 interview in ITAR-TASS: http://www.itar-tass.com/eng/level2.html?NewsID=13623548&PageNum=0, and International Herald Tribune 28 May 2008.

[20] Ilulissat Declaration of 25 May 2008. Can be accessed at the homepage of the Danish Ministry of Foreign Affairs: http://www.um.dk/NR/rdonlyres/BE00B850-D278-4489-A6BE-6AE230415546/0/ArcticOceanConference.pdf

dance with international law and particularly the LOSC."[21]

As regards the ocean areas beyond national jurisdiction, the high seas in the Arctic are ice-covered for most of the year and do not offer much opportunity for economic activities. The mineral resources in and on the deep seabed here are subject to the common heritage of mankind principle.

An emerging issue in regard to the high seas in the Arctic is the conservation of biodiversity, including the regulation of the use of marine genetic resources.[22] The 1992 Biodiversity Convention does not apply beyond the areas under national jurisdiction. The Law of the Sea Convention would constitute the basis for conservation efforts, but may not be sufficient in this regard. There is an on-going process in the UN on biodiversity conservation in the high seas,[23] and this may have a bearing on the situation in the Arctic.

c) Straits

The two major straits in the Arctic are in parts of the Northwest Passage in the Canadian Arctic and in parts of the Northeast Passage in the Russian Arctic. Both coastal states consider these straits internal waters, with baselines drawn on the outside of archipelagos or islands. Therefore, they claim the right to regulate vessel traffic in these areas as they wish. The United States and countries in the European Union, on the other hand, consider these waters as international straits, where foreign vessels enjoy the right of free passage.

5. The Arctic Council

The Arctic Council was established in 1996,[24] on the foundations of on-going cooperation between the eight Arctic countries (the five Arctic

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[21] T. Potts and C. Schofield, "Current Legal Developments in the Arctic", *The International Journal of Marine and Coastal Law*, Vol. 23, pp. 151-176.

[22] D. Leary, *Bioprospecting in the Arctic*. Yokohama, United Nations University, 2008.

[23] Resolution adopted by the General Assembly on Oceans and the Law of the Sea, A/RES/59/24, para. 73.

[24] Declaration on the Establishment of the Arctic Council, Ottawa, 19 September 1996. Available at http://arctic-council.org/filearchive/Declaration%20on%20the%20Establishment%20of%20the%20Arctic%20Council-1..pdf

Ocean States plus Iceland, Finland and Sweden) based on the 1991 Arctic Environment Protection Strategy.[25] Envisioned as a "high level forum", the Arctic Council has a number of programs pertaining to themes such as sustainable development, protection of the marine environment, and monitoring and assessment.[26]

The actual work of the Arctic Council takes place in six working groups administering these programs. Each working group again has a number of projects. The activity in the working groups spans a wide range of issues, but in all cases fundamentally addresses the status of knowledge in a given issue area. In addition, this work over time also helps to build common understandings among participants concerning approaches and solutions to various challenges in the region.[27] On the basis of consensual knowledge, the Arctic Council has also worked on developing strategic plans and guidelines for action by the member states. This serves to enhance the capacity of member states in policy implementation on specific issues.[28]

A number of Arctic Council projects have been important in terms of their contribution to establishing the status of knowledge on an issue and bringing it onto a political agenda. For instance, the 2000-2004 Arctic Climate Impact Assessment (ACIA) was an effort to assess the status of knowledge and construct scenarios for climate change in the region.[29] The ACIA project was very successful in terms of its scientific achievements as well as in bringing the issue of the consequences of climate change higher on the international political agenda.[30] Other recent important proj-

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[25] For an overview of the evolution and organization of the Arctic Council, see: T. Koivurova and D. VanderZwaag, "The Arctic Council at 10 years", *UBC Law Review*, Vol 40:121-194, 2007.

[26] O. Young, "Governing the Arctic: From Cold War Theater to Mosaic of Cooperation", *Global Governanc*e, Vol. 11, pp. 9-15, 2005.

[27] A. H. Hoel, "Do We Need a New Legal Regime for the Arctic?", forthcoming International Journal of Coastal and Marine Law, 2009.

[28] O.S. Stokke, "A Legal Regime for the Arctic? Interplay with the Law of the Sea Convention", *Marine Policy*, Vol.31, pp.402-408, 2007.

[29] ACIA, *Arctic Climate Impact Assessment*. Cambridge, Cambridge University Press, 2005.

[30] A.H. Hoel, "Climate change", in O.S. Stokke and G. Hønneland (Eds), *International Cooperation and Arctic Governance: Regime Effectiveness and Northern Region Building*. London: Routledge 2007, pp. 112-137.

ects include the AMAP Oil and Gas Assessment[31] and an Arctic Marine Shipping Assessment[32] prepared for the 2009 ministerial. Capacity enhancing initiatives under the Arctic Council include the 2004 Arctic Marine Strategic Plan[33] and Guidelines for the offshore exploitation of petroleum in the Arctic (1997, 2002 and 2009).[34]

The Arctic Council works by consensus. As a "high level forum", it has no regulatory mandate and relies on building consensual knowledge and understandings. A special feature of the cooperation is the role given to six groups of indigenous peoples: as "permanent participants" they participate in decision-making along with the eight states. The direction for the cooperation is given by bi-annual ministerial meetings where declarations are adopted, setting out the course of action for the next work period. In between the ministerials, the Arctic Council is run by the Senior Arctic Officials (SAOs) of the member countries. About ten other countries participate as observers. With the recent interest in the Arctic, a number of other countries and the EU have signaled their interest in playing a more active part in the work of the Arctic Council. Also, a number of international governmental organizations as well as non-governmental organizations participate as observers.

The 2007-2009 period constitutes the third International Polar Year (IPY),[35] a massive international effort in the scientific study of the Polar Regions. Because of the importance of scientific knowledge to the work in the Arctic Council, the IPY is likely to have a lasting legacy, in particular in climate-related issues. A central body in this regard is the International Science Committee (IASC). It plays an important role in Arctic science by initiating and coordinating international scientific initiatives.[36]

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[31] Arctic Monitoring and Assessment Programme, *Arctic Oil and Gas 2007*. AMAP, Oslo, 2008.
[32] See: http://arcticportal.org/amsa
[33] Available at: http://arcticportal.org/pame/amsp
[34] See: http://arcticportal.org/en/pame/offshore-oil-and-gas
[35] See: http://www.ipy.org/
[36] See: http://www.arcticportal.org/iasc/

In this context it should also be noted that there are a high number of bilateral agreements between the countries in the Arctic concerning a range of issues; fisheries and environment are among the most prominent. The only circum-Arctic legal treaty is the 1974 Polar Bear Treaty.[37]

6. Climate change

Climate change and its potential effects on the natural environment and humans is perhaps the major issue of our time. This concern has been voiced among others by the UN General Assembly in 2007 in resolution (A/62/L.24), and by the EU Commission in its paper in March 2008 to the Council on climate change and international security.[38]

Climate change has over the last few years emerged as a major challenge to the Arctic nations in particular. The Arctic Climate Impact Assessment demonstrated that temperatures in the Arctic have increased almost twice as much as the global average increase.[39] Furthermore, a number of climate models indicate that warming in the decades ahead is going to be stronger in the Arctic than elsewhere. A major reason for this is that warming reduces the area covered by ice and snow. And while snow and ice reflect about 80% of the incoming radiation, an open ocean absorbs 90% of it. So the disappearance of snow and ice is a process that actually feeds on itself, reinforcing warming trends.

The potential effects of climate change in the Arctic are manifold, complex and potentially enormous in scope and consequence. Among the most important in the Arctic are the following:

Larger ice-free areas: satellite surveillance of the distribution of ice started in 1979. Since then, we have witnessed a substantial decline in ice cover in the Arctic Ocean. The lowest area ever recorded was registered in September 2007 - at 4.1 square kilometres. This is 20% below the previ-

[37] The parties are the littoral states in the central Arctic Ocean. The first meeting of the parties will be held in March 2009.
[38] Paper from the High Representative and the European Commission to the European Council, 14 March 2008. S113/08.
[39] ACIA, *Arctic Climate Impact Assessmen*t, Cambridge, Cambridge University Press, 2005.

ous 2005 “record”, and represents a disturbing trend where reductions in ice cover occur on a faster time scale than predicted by scientific models.[40]

Reductions in the extent of sea ice may open up new possibilities for shipping. While the Northeast Passage already has a substantial amount of traffic in its western part, the Northwest Passage may also see an increase in traffic. There are however a number of physical and logistic limitations in both passages, and major increases in traffic are not likely in the short term.[41]

Should major reductions in ice cover and thickness continue, the Northwest and Northeast passages may eventually become less interesting as it becomes possible to sail straight across the Arctic Ocean.[42]

Also, there has been a substantial increase in ship-based tourism in a number of areas in the Arctic (and the Antarctic), and this poses challenges in terms of the security of operations, risks of pollution, and the lack of infrastructure for search and rescue operations in the Arctic. There have been a number of accidents, and while major disasters have been avoided so far, there have been several close calls.

There are a number of international treaties that aim to regulate various aspects of shipping. The institutional responses to the recent developments in the Arctic include first a revision of the voluntary Polar Code (“Guidelines for ships operating in Arctic Ice-Covered Waters”) under the International Maritime Organization (IMO). The Polar Code provides a system of classes for vessels operating in ice-covered or ice-infested waters. The idea is to reduce the risks associated with operating in ice, and the guidelines provide technical standards that vessels travelling in ice-covered waters must satisfy, in addition to guidelines for operations.[43]

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[40] http://news.bbc.co.uk/2/hi/science/nature/7786910.stm

[41] See F. Laserre, this volume

[42] The Future of Arctic Marine Navigation in Mid-Century. Scenario Narratives, the Arctic Marine Shipping Assessment (AMSA), Available at www.pame.is

[43] www.imo.org

Also, in light of the increased vessel traffic, there are discussions on arrangements for search and rescue operations in Arctic waters.

Sea level rise: The melting of sea ice does not affect the sea level. The Greenland and Antarctic ice-caps do however pose major challenges in this regard. If the Greenland ice-cap were to melt down (highly unlikely), it would add several meters to today's sea level. The corresponding figure for the Antarctic ice-cap is considerably larger. These developments take place on very long time scales. Likely consequences in the Arctic include erosion on shore areas, threats to near-shore buildings and increased vulnerability of coastal infrastructure. The nature of coastlines and the capacity of coastal communities to adapt to change will be important determinants of the actual impact of sea level rise.

A third set of impacts of climate change relates to living marine resources. While this is a global concern,[44] changes in the geographic distribution of living marine resources are likely to be a consequence of climate change.[45] The responses of marine ecosystems to warming are however complex and uncertain - there is not necessarily a linear increase in productivity in response to warming.[46] We may witness changes in migratory ranges, the emergence of new species and changes in primary production due to warming waters.

In the management of transboundary fish stocks, fishing quotas are distributed among countries according to negotiated agreements that reflect distributional criteria. Such criteria include the history of fishing and geographical distribution of stocks, but power relationships are also important in determining actual allocation of quotas.[47] Changes in migratory ranges of fish stocks may upset existing allocation schemes by changing the zonal

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[44] E.H. Allison et al., "Vulnerability of National Economies to the Impacts of Climate Change on Fisheries", *Fish and Fisheries*, Blackwell, 2009.

[45] Chapter 13 of the Arctic Climate Impact Assessment specifically addresses this.

[46] H. Loeng, et al., *Klimaendringer i Barentshavet - konsekvenser av økte CO2 nivåer i atmosfæren og havet*, Tromsø, Norwegian Polar Institute Report Series No 126 2008.

[47] A.H. Hoel and I. Kvalvik, "The Allocation of Scarce Natural Resources: The Case of Fisheries", *Marine Policy*, Vol 30, pp 347-356, 2006.

attachment of fish stocks and may therefore lead to allocation conflicts between countries. In this context it should be noted that management regimes adjacent to the Arctic Ocean, for the Bering Sea (US, Russia-US), and for the Barents Sea (Norway - Russia), have been in existence for decades and appear to function relatively well.[48] It should also be noted that the existing regional fisheries management organizations in the Bering Sea and the north east Atlantic over time have been largely able to absorb distributional conflicts. Should new distributional issues arise, an institutional framework for handling them exists, except in the central Arctic Ocean.

Fisheries on the high seas in the central Arctic Ocean are non-existent today, because of the ice cover. Should the ice cover continue to be reduced, one could speculate that some years ahead we may see high seas fisheries also in the Central Arctic Ocean. The US Congress in May 2008 adopted a resolution urging the administration to address this issue.[49] Also in this case the Law of the Sea Convention provides the basis for the management of those resources, along with the 1995 UN Fish Stocks Convention. One or more regional high seas fisheries agreements or arrangements may have to be negotiated. In the other high seas areas in the Arctic, the Norwegian Sea, the Barents Sea and the Bering Sea, arrangements are in place for the management of the fisheries.

An important response to these challenges is the introduction of ecosystems-based management. This essentially means that the impacts of economic activities on ecosystems have to be taken into account on the one hand, and that the constraints imposed by the ecosystems, including external forcing like climate change, have to be taken into consideration on the other.[50] All Arctic countries are currently in the process of introducing schemes for ecosystems-based oceans management at various levels of governance.

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[48] A.H. Hoel, "Best Practices in Fisheries Management: Experiences from the Norwegian - Russian Fisheries Cooperation", in P. Aalto, H. Blakkisrud, and H. Smith (Eds), *The New Northern Dimension of the European Neighborhood*, Brussels, Center for European Policy Studies, Brussels, pp. 54-70, 2008.
[49] J. Res.17, 21 May 2008,
http://commerce.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&PressRelease_id=e1a92c22-d482-4073-8c39-c29f83061aa7&Month=5&Year=2008
[50] Morishita, J. 2008, What is the ecosystem approach for fisheries management? Marine Policy 32:19-26

7. Conclusions

Climate change, then, does bring challenges that concern jurisdiction and may be important in relation to the question raised at the outset here - who can decide what where?

The 1982 Law of the Sea Convention establishes that coastal states have sovereign rights over the natural resources in their Exclusive Economic Zones, that such rights also apply on continental shelves where these extend beyond 200 nautical miles, and that mineral resources on the deep seabed are the common heritage of mankind. Marine living resources in the high seas beyond the EEZs are subject to a global regime laid down in the 1995 UN Fish Stocks Convention, which expands upon provisions in the Law of the Sea Convention. The International Maritime Organization has developed a number of international agreements pertaining to shipping.

This global legal framework applies in the Arctic. The ground rule for delimitation of marine boundaries is that the interested states are to negotiate solutions. A brief survey indicates that the Arctic is no different from the rest of the world in having unresolved marine boundaries. As regards delimitation of EEZs, there are three major outstanding issues: in the Bering Sea between Russia and the US (Russia has not ratified a negotiated treaty), in the Beaufort Sea between Canada and USA, and in the Barents Sea between Norway and Russia. Russia and Norway have followed up the requirements in the Law of the Sea Convention to submit information to the UN Continental Shelf Commission to determine the outer limits of their continental shelves, and Canada and Denmark are set to follow suit. The five littoral states of the Arctic Ocean basically play by the rules laid down in the Law of the Sea.

On the political side, the Arctic Council constitutes a high level forum which addresses a wide range of current issues in the Arctic: climate change, environmental protection and economic activities. The work in the Arctic Council fundamentally aims to address the status of knowledge in a given issue area, which over time helps to build common understandings

among participants with regard to approaches and solutions to various challenges in the region. The Arctic Council has also worked on developing strategic plans and guidelines for action by the member states, which enhance their capacity in policy implementation.

Finally, climate change will have a major impact in the Arctic. Among other things, ice cover in the Central Arctic Ocean is declining. This has a number of consequences which raise several issues of governance relating to petroleum extraction, shipping, fishing and other matters. The existing global legal framework constitutes the institutional basis for the development of solutions to these issues.

RUSSIA AND THE HIGH NORTH: SECURITY AND DEFENCE PERSPECTIVES

Katarzyna Zyśk*

This paper addresses the Russian approach to security and defence issues in the High North and in the Arctic.[1] In particular, it focuses on elements of continuity and change in the Russian view of the strategic situation in the region. There is little doubt that Russia and its policy remain of crucial importance to all actors involved in the Arctic. A better understanding of Russian attitudes is a prerequisite for developing an adequate response to the emerging challenges in the region. It is also a necessary condition for development of an efficient dialogue and cooperation with Russia as a crucial regional actor.

The discussion in this paper focuses on Russian attitudes to 'hard security' issues in the region. These are dominated by a confrontational and phobic approach based on an assumption that Russia and the West have divergent interests, and that the United States is primarily interested in 'keeping Russia down'. The Western presence, especially the military presence in the High North, has therefore been viewed with mistrust, as an indication of anti-Russian strategic agendas. This philosophy is fairly consistent with the general thrust of Russian security policy in recent years. However, as it will be clearly emphasized in the following paragraphs, Russia has different standpoints on a range of northern issues. Other

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This article is based on the findings of the author's research project: *The Barents Sea in Russian Security Policy Discourse* founded by the Norwegian Ministry of Defence.

[1] The term 'High North' as used in this paper pertains first and foremost to the Kola Peninsula with adjacent waters, the Barents Sea, the Norwegian Sea, and the southern parts of the Polar Sea. In Russian sources this region is often referred to as the European North (Evropeiskii Sever, Sever Evropy), or in a broader sense the Western Arctic (European), as opposed to the Eastern Arctic (Asian). The term 'Arctic' is defined here as all areas to the north of the Arctic Circle.

Russian attitudes that are clearly discernible are based on a commitment to the rules of international law, and should be taken into account when drawing policy implications from the findings presented here.

The main part of the discussion presented in this paper is divided into five subsections. The first three focus on the old patterns dominating the Russian approach to security in the region. They address: 1) the region's military strategic importance to Russia; 2) Russian threat perceptions and attitudes towards the other actors in the region, first and foremost the United States and NATO; 3) the place of the Svalbard archipelago in Russian military strategic thinking. The last two subsections examine newer elements of Russian security discourse on the High North: 4) energy resources in the context of interdependence between the development of the petroleum industry and Russian military activity; 5) potential for conflict in the region. Finally, the paper suggests tentative conclusions and indicates possible implications of the findings for NATO and the West.

I. BACKGROUND

The High North is an arena of international cooperation as well as actual and potential conflict. It poses serious challenges related to the exploitation of both marine and petroleum resources and the protection of fragile ecosystems. In recent years, the appearance of the Barents Sea and the Arctic in general as a potential major future energy province has increased international attention to this region.[2] In view in particular of

[2] Actors with a stake in this region, especially the five polar states, have asserted their interests and expressed readiness to take measures to protect them. Canada's stance (as summarised by Prime Minister Stephen Harper in a famous 2007 catchphrase, 'Use it or lose it',) has been among the most resolutely articulated national ambitions. Equally, in January 2009, in one of its final actions the Bush administration issued a directive on Arctic policy. The European Union has also turned its attention northwards, as has the European Security and Defence Assembly (Western European Union). Furthermore, the security implications of the changing conditions in the Arctic have aroused NATO interest. See a range of Arctic policy documents endorsed by the mentioned organizations: *Communication from the Commission to the European Parliament and the Council*. The European Union and the Arctic, COM (2008) 763 Final, Brussels, 20 November 2008, http://ec.europa.eu; *Europe's northern security dimension*, Document C/2016, European Security and Defence Assembly, Assembly of Western European Union, 55th Session, 5 November 2008. The WEU Assembly approved recommendations of the report on 4 December 2008. http://assembly-weu.itnetwork.fr/en; *Security Presidential Directive and Homeland Security Presidential Directive. Subject: Arctic Region Policy*, The White House, 9 January 2009, www.whitehouse.gov/news/releases/2009/01/20090112-3.html.

Russia's prominent presence in the High North and the emerging development of offshore oil and gas fields, there is increasing focus on the links between energy and matters of 'hard security'.

There is a growing awareness in capitals around the world that security challenges emerging in the region have the potential to more broadly affect international affairs. Russia has been among the most determined Arctic players. A strong focus on the region has increasingly been part of Russian domestic and foreign policy discourse, particularly since Putin's second presidential term. Assertive rhetoric, addressed both to the domestic and to the international audience, has been followed by a range of steps aiming to strengthen Russia's positions in the region. High-ranking Russian politicians have acknowledged that there is no coordinated and consistent strategy or policy for the Russian North. This lack of a coherent approach has been pointed out as one of the biggest challenges in Russia's policy towards this region.[3] It has often been claimed that the Arctic strategy adopted by the Russian government in 2001 was not adequately implemented.[4] The problem was analysed by the State Council's working group, and came under scrutiny at the highest political level in 2004.[5] Two years later, Admiral Viacheslav Popov, the Deputy Chairman of the Committee on Defence and Security in the Council of the Federation, claimed that most of Putin's directives issued after that meeting had not been complied with.[6]

However, the importance of the region to Russia has been clearly

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[3] Vladimir Putin, *O razvitii infrastruktury Morskogo transporta v Rossiiskoi Federatsii*, Murmansk, 2 May 2007, www.kremlin.ru; Aleksandr Konstantinov, 'Novoe myshlenie dlia osvoeniia Severa', *Rossiiskaja gazeta*, 27 March 2007; 'Vchera v Salekharde govorili o problemakh rossiiskogo Severa', April 2004,
www.gov.karelia.ru; Voprosy obespecheniia natsionalnoi bezopasnosti v raionakh Severa. Rabochaia Gruppa Gosudarstvennogo Soveta Rossiiskoi Federatsii po voprosam politiki v otnoshenii severnykh territorii Rossiiskoi Federatsii, 2004, Arktika Segodnia, http://arctictoday.ru

[4] V. Popov, 'Zakondatelnoe obespechenie natsionalnoi morskoi politiki i ekonomicheskoi deiatelnosti v Arktike', *Morskoi sbornik*, no. 9, September 2006.

[5] Vladimir Putin, *Osnovnye napravlenia gosudarstvennoi politiki v otnoshenii severnykh territorii Rossii*, Meeting of the Presidium of the State Council of the Russian Federation no. 36, 28 April 2004, www.kremlin.ru; 'Vchera v Salekharde govorili o problemakh rossiiskogo Severa'.

[6] V. Popov, op. cit.

emphasized in recent years. President Dmitry Medvedev has described the Arctic as Russia's base for natural resources in the 21st century.[7] The Russian authorities consider the region as crucially important for Russia's further wealth, social and economic development and competitiveness on global markets.[8] The Arctic also appears vital for the country's relevance in world affairs, since income from energy exports is decisive for Russia's international status. Up to now most of Russia's energy production has been based in Western Siberia. A strong downfall in production is, however, expected in the next 20 years. The strategic Arctic resources could compensate for dwindling reserves in existing fields.[9] Indeed, according to Russian sources, up to 90 per cent of the hydrocarbon reserves found on the entire Russian continental shelf is in the Arctic, and 70 per cent of them are located in the Barents and Kara Seas. There are also important reserves of strategically important metals and minerals like nickel, copper, cobalt, gold, diamonds, apatite, etc.[10] As a result, defining the limits of the country's continental shelf has become a top priority.

Russian focus on the Arctic has been highlighted by several significant steps such as the adoption in September 2008 of a new Arctic strategy up to 2020.[11] Ambassador Anton Vasiliev, Head of the Department on Arctic and Barents Sea Affairs in the Russian Foreign Ministry and current chair of the Group of Senior Officials in the Barents Euro-Arctic Council, has assured that the previously inconsistent Russian northern policy is now a thing of the past.[12]

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[7] Dmitrii Medvedev, *O zashchite natsionalnykh interesov Rossii v Arktike*, Moskva, 17 September 2008, www.kremlin.ru.

[8] Aleksandr Konstantinov, op. cit.; 'Rossiia prodvinet granitsy v Arktiku', *RBC news,* 17 September 2008.

[9] Victor Yasmann, 'Race to the North Pole', *Radio Free Europe/Radio Liberty*, 27 July 2007.

[10] *Osnovy gosudarstvennoi politiki Rossijskoj Federatsii v Arktike*, The Government of the Russian Federation, Moscow, 14 June 2001, Protocol no. 24, Chapter III, www.sci.aha.ru/econ/A111c.htm; Vladimir Vysotskii, 'My obespechivaem bezopasnost Rossii na vazhneishem strategicheskom napravlenii', *Orientir,* June 2007; See a press release from the meeting of the Security Council of the Russian Federation on 12 September 2008, www.scrf.gov.ru/news/349.html.

[11] *Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike na period do 2020 goda i dalneishuiu perspektivu*, President of the Russian Federation D. Medvedev, Pr-1969, 18 September 2008. The document was published in late March 2009 and is available at the website of the Security Council of the Russian Federation, http://www.scrf.gov.ru/documents/98.html.

[12] *Europe's northern security dimension*.

Although the Russian authorities consider armed conflict as highly unlikely in the foreseeable future, Russian military activities in the region have been on the rise. The High North's emergence as a potential new energy province, together with remaining unresolved legal issues, has raised questions about the region's stability. In particular, the planting of the Russian flag on the seabed under the North Pole in August 2007 triggered domestic and international attention. It also provoked criticism, especially in other Arctic countries, as an allegedly aggressive Russian attempt to claim Arctic territory. Although this was hardly the case, the accusations were fuelled by Russia's assertive rhetoric about protecting national interests in the High North.

Nevertheless, despite its newfound assertiveness, in official policy Russia has been following a rather pragmatic line where the High North is concerned. Indeed, it has acted in compliance with international law in pursuing its territorial claims. This policy line was recently reaffirmed in the Ilulissat Declaration signed in May 2008 by Russia and the four other Arctic Ocean states.[13] The importance of international law has been repeatedly stressed by Russia's leadership and reflected explicitly in core foreign policy documents, including Putin and Medvedev's annual addresses to the National Assembly.

Thus, Russia adopts different approaches to a range of problems in the High North. From one point of view, the apparent discrepancy may be a manifestation of a lack of a consistent policy towards this region, where different sectors are driven by the diverse interests of multiple actors. On the other hand, the divergent signals, sometimes confusing and contradictory, may in themselves be a strategy. For Russia's partners the challenge may be to choose which language they should listen to: the aggressive, phobic language, or the rational one, based on a commitment to the rules of international law.

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[13] *The Ilulissat Declaration*, 28 May 2008. The text of the declaration and supplementary information are available from the Danish Ministry of Foreign Affairs, www.um.dk

II. THE RUSSIAN SECURITY AND DEFENCE PERSPECTIVE

The High North's military strategic importance to Russia

Relations between Russia and the other states bordering the Arctic have changed fundamentally since the end of the Cold War, as has the military presence of the major actors in the region. This is less the case with regard to the basic Russian view of the military strategic qualities of the region and of the presence, especially military, of other actors. The perceptions and attitudes were largely defined during the Cold War, survived the turbulent 1990s and are now resurfacing with renewed strength. The Russian approach to security and defence in this region has been based on a conviction that Russia and the West have opposing interests. US and NATO presence and activity in the High North have therefore been observed with mistrust and as an indication of anti-Russian strategic agendas.

From the end of the Cold War and throughout the 1990s, security challenges in the High North were played down, while non-military factors became increasingly more important. However, the region has retained its strategic relevance to Russia. The north-western strategic direction[14] has been and still is considered an area of special importance to Russia's security.[15] An Arctic policy document endorsed by the Russian government in 2001 stated that all types of activities in the region were connected in the highest degree with Russia's security and defence interests.[16] There are several factors that contribute to the region's continued military strategic value to Russia. The most important is the sea-based nuclear forces operating from their bases on the Kola Peninsula. The nuclear deterrent, while still a key element of Russian security policy and its military

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[14] The term 'napravlenie' is sometimes rendered as 'axis'.

[15] See *Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike,* 2001; Vladimir Vysotskii, op. cit.; Lada Karitskaia, 'V zashchitu natsionalnykh interesov', *Na strazhe Zapolaria*, 24 March 2007. The military strategic importance of the region to Russia was emphasized by the Security Council of the Russian Federation during a meeting devoted to defence of Russia's national interests in the Arctic on 12 September 2008, 'Sovbez v serdce Arktiki', Russian state TV channel *Vesti Nedeli*, 14 September 2008, www.vesti7.ru/news?id=12619; www.scrf.ru.

[16] Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike, 2001.

strategy, also serves as a symbol and guarantee of Russia's great power status. A weakness in conventional forces has led to the strengthening of the role of nuclear forces in Russian military doctrine, thus creating an opening for a retaliatory nuclear strike in response to any large-scale aggression against Russia. Consequently, maintaining nuclear capabilities has received the highest priority in the modernization efforts of the Russian armed forces.[17]

Elements of continuity in the Russian approach to the region going back to the Soviet period can be clearly seen in the assessment of the military qualities of the High North. The Northern Fleet has been based in the region due to a number of factors that make it favourable for strategic naval operations, such as direct access to the Atlantic Ocean and the Arctic, good ice conditions, close proximity to potential targets and important defence industry and infrastructure. The dissolution of the Soviet Union, which reduced Russia's access to the Baltic and the Black Sea, has strengthened the North's military relevance.

The military has been given an enhanced role in Russia's efforts to return to the world stage as a great power with a global reach and an appropriate influence on world affairs. A dramatic improvement in state finances, however fragile and dependent they may be on energy export, has left room for new military projects. The Russian armed forces have received considerably more funds since Putin came to power than during the entire period following the demise of the Soviet Union. Among the ambitious projects that, once realized, might gradually lead to increased Russian striking power in the High North is the Navy's revival. The Commander-in-Chief of the Russian Navy, Admiral Vladimir Vysotskii, announced at a press conference in Severomorsk in February 2008 that Russia would do whatever necessary to strengthen its presence in areas where the country has strategic interests. He maintained that from that

[17] See, for example, Irina Isakova, 'Russian Defence Reform: Current Trends', The Strategic Studies Institute of the US Army War College, December 12, 2006, p. 30-31; Stephen J. Cimbala, 'Russia's Evolving Strategic Nuclear Deterrent', *Defence & Security Analysis*, Vol. 23, No. 3, September 2007, pp. 257-279. This has also been spelled out in the draft of the national security concept until 2020. See Vladimir Solovev, 'Otechestvo v gosbezopasnosti', *Kommersant*, 25 December 2008.

moment on the Navy would conduct major exercises once every six months. Vysotskii left no doubt that the Russian Navy would gradually step up its international presence.[18]

The Russian leadership has repeatedly confirmed its aspirations to build the second most powerful fleet in the world after the United States over the next 20 to 30 years. The ambitious plans include rebuilding of a 'blue-water navy' resembling or in some areas even surpassing Soviet naval power of the 1970s and 1980s. The list of objectives includes 5 or 6 aircraft career squadrons for the Northern and Pacific Fleets, construction of several fourth-generation ballistic missile submarines of the Borei class, a new inter-continental submarine-launched ballistic missile (Bulava) and modernization of the older sea-based nuclear deterrent (the Delta IV submarines).[19]

Russian military ambitions have been emphasized by high profile naval exercises aimed at 'ensuring Russia's presence in key operational areas of the world's oceans'.[20] After the end of 2007, exercises in the North Atlantic, Mediterranean, Indian Ocean and elsewhere were held to demonstrate that Russia was able to conduct major military operations and had the means to defend its national interests. In December 2008, 13 Russian warships were operating in different parts of the world outside Russian waters. According to the Russian news agency *RIA Novosti*, it was the highest number noted since the fall of the Soviet Union.[21] The increased military activity has reinforced the message that Russia remains a formidable military power, able to hold in check what is seen as an American geopolitical offensive. It has also emphasized the increased Russian attention to further development of military capabilities, which are seen as an important or even decisive tool in pursuing a forceful foreign policy worthy of a global power.

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[18] 'Korabli Severnogo Flota vernulis v Severomorsk', *Murman.ru*, 4 February 2008.
[19] See for instance Mikhail Barabanov, 'Kuda idët rossiiskii flot', *Kommersant-Vlast*, 25 February 2008.
[20] Statement by Commander of the Northern Fleet, Vice Admiral Nikolai Maksimov, 'Russian Bear Bombers Join Final Drills in N. Atlantic', *RIA Novosti*, 29 January 2008.
[21] Ivan Konovalov, Aleksei Chernyshev, 'S Tikhogo okeana vyshla gromkaia sensatsia', *Kommersant*, 11 December 2008.

Such moves should also be seen in the larger context of Russia's domestic policy. Since President Putin's second term of office, Russian authorities have led a Soviet nostalgia campaign. Putin called the collapse of the Soviet Union the greatest geopolitical catastrophe of the 20th century.[22] The Russian public clearly responds positively to the systematic rehabilitation of the Soviet period, including the 'heroic' role and 'achievements' of Joseph Stalin. The big naval exercises and other spectacular military and non-military moves are part of efforts to restore an image of Russia as a great power and thus help the leadership to amass political capital.

While Russia's potential to carry out the ambitious military plans remains highly uncertain, there is no doubt about the determination of the current Russian leadership to modernize the defence sector, if necessary by taking radical steps.[23] The 'revolutionary' plans for transformation of the Russian armed forces embrace radical cuts in the officer corps (from 355,000 to 150,000) and in the General Staff and Defence Ministry (from approximately 22,000 to 8,500).[24] Fundamental changes are also to take place in the educational system. The number of institutions is to be reduced from 65 to six academies, one military university and three military and educational centres. Among the most significant structural changes is a reduction of levels of command from four (military district, army, division, regiment) to three (military district, operational command, brigade). However, there are already indications that the pace of military transformation will be substantially slowed down as a consequence of the worsening economic situation.[25]

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[22] Vladimir Putin, Annual Address to the Federal Assembly of the Russian Federation, the Kremlin, Moscow, 25 April 2005.

[23] Plans for transformation of the Russian armed forces were presented several times by Minister of Defence Anatolii Serdukov and Chief of the General Staff Nikolai Makarov between October and December 2008. For a short overview see Mariia Ivanova, 'Armiia smykaet riady', *Vzgliad*, 14 October 2008; Yurii Gavrilov, 'Generalskoe sokrashchenie' *Rossiiskaia gazeta*, 15 October 2008; Lev Makedonov, 'Genshtab pritormozil zvezdy', *Gazeta.ru*, 17 December 2008.

[24] Yurii Gavrilov, op. cit.

[25] According to the decree signed by President Medvedev on 29 December 2008, the number of Russian armed forces will be reduced to 1 million soldiers in 2016, i.e. four years later than envisaged in the plan presented two months earlier by Minister Serdukov. The document is available on the President's website, *Ukaz Prezidenta Rossiiskoi Federatsii 'O nekotorykh voprosakh Vooruzhennykh Sil Rossiiskoi Federatsii'*, 2008, www.kremlin.ru.

Russian perceptions of 'the others' in the High North

Old patterns in Russian security thinking are visible in the understanding of international relations in the region. The other *(Western)* actors in the High North are perceived through the lenses of classic *Realpolitik*. The attitudes and perceptions remain thus in accordance with the general trends and patterns in Russian security policy in recent years. They have increasingly become a part of official Russian discourse, particularly since President Putin's second term.

The perception that the United States and NATO are the main threat to Russia's security is still alive in large parts of the Russian political, military and academic establishment. A range of well-known Russian concerns have stimulated anti-Western attitudes and added to a sense of insecurity: the United States and NATO's increasing military-technological supremacy, American plans to deploy elements of the ballistic missile defence in central Europe, NATO's debate on further eastward enlargement and the Western countries' political role in the post-Soviet space, to name just a few. These factors have been a source of concern and have played a role in Russia's plans to modernize its strategic nuclear forces. The need to improve the state's defence and security and to maintain nuclear parity with the United States has been spelled out in core policy documents, including the draft of the new Russian security policy concept.[26]

One example of the sense of insecurity and mistrust prevailing in Russian attitudes can be found in a report completed in 2004 by the Russian State Council's working group on national security interests in the North. The evaluations revealed a fundamentally suspicious approach towards other actors in the region. The report was concerned especially with the United States and NATO, who were suspected of having hidden agendas. Their presence in the region was perceived to be directed against alleged threats from Russia and was therefore evaluated as 'anti-Russian'

[26] As reported by the Russian media; see Vladimir Solovev, op. cit.

in character.[27] There has been growing concern that Russian strategic forces in the North are still facing NATO just across the border. Military representatives and the State Council's report have emphasized that the Alliance has maintained armed forces and a developed military infrastructure in the region. Representatives of military circles and the State Council have pointed out that Norway and NATO have actively penetrated the Arctic. It has been argued that Norway and its allies and partners aim to undermine Russia's position and reduce its presence in the region. NATO's military exercises in the immediate proximity of Russian borders, however small in scale they may be, have been observed with suspicion.

Representatives of the Northern Fleet, military experts, the State Council and other central Russian actors have pointed to allegedly increasing political and military pressure from the United States and NATO. For example, Sergei Kozmenko, a Russian expert involved in the formulation of Russia's maritime policy in the Western Arctic, has argued that NATO is seeking control and hegemony in the world's oceans. The aim, he maintained, is to increase the threat from the sea, first of all against Russia, China and India.[28] The State Council's working group pointed out in 2004 that NATO's military presence and activity should be a point of reference when planning Russia's military tasks in the High North.[29]

Svalbard in Russian military strategic thinking

The Svalbard archipelago is perceived in Russia as playing a crucial role for the country's positions in the Arctic. An analysis of the Russian view of a range of problems converging at the archipelago – from military strategic, through energy to unresolved legal issues – gives a valu-

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[27] *Voprosy obespecheniia natsionalnoi bezopasnosti v raionakh Severa*. See also subsequent statements and documents concerning a draft version of the new Russian military doctrine, and Russian northern policy: *O razrabotke proekta novoi redaktsii Voennoi doktriny Rossiiskoi Federatsii*, The Security Council of the Russian Federation, 5 March 2007; *Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike*, 2001; G.D. Oleinik, *Prisutstvie Rossiiskoi Federatsii na arkhipelage Shpitsbergen: politiko–pravovye, ekonomicheskie i gumanitarnye aspekty*, The Council of the Federation Committee on Northern Territories and Indigenous Minorities Issues, Moskva, 19 June 2007.

[28] S. Kozmenko, 'Voenno–morskaia ekonomika. VMF kak sredstvo obespecheniia ekonomicheskikh interesov Rossii', *Morskoi sbornik*, January 2006.

[29] Voprosy obespecheniia natsionalnoi bezopasnosti v raionakh Severa.

able insight into the characteristic features of the Russian approach to security problems in the region.

Russian discourse emphasizes the strategic role of the Svalbard archipelago in the military landscape of the High North. According to Gennadii Oleinik, chairman of a committee with responsibility for northern issues in the Council of the Federation, a continued presence on Svalbard is necessary to secure Russia's economic and military interests in this 'most promising part of the world'.[30] The Deputy Chairman of the State Duma's Committee on Foreign Affairs and former Russian Ambassador to Norway, Yulii Kvitsinskii, warned Moscow that to abandon Svalbard would be comparable to the thoughtless abandonment of Alaska.[31] Other high ranking politicians, like the former Deputy Prime Minister Sergei Naryshkin and the former Deputy Secretary of the Security Council Nikolai Spasskii, argued that a weakening of the Russian presence on Svalbard would lead to a deterioration of Russia's positions in the Arctic in general.[32]

Spasskii connected the Russian presence on Svalbard with other Russian interests in the region. He maintained that weakening of the Russian foothold would certainly undermine the country's positions in negotiations with Norway about such issues as delimitation of the maritime border in the Barents Sea, or discussions on fishery issues. He concluded that the Russian presence on Svalbard should thus be seen in a strategic perspective.[33] One of the manifestations of Russia's growing interest in the region in recent years was the establishment of a Svalbard Commission in April 2007 with a relatively high status, chaired by the First Deputy Prime Minister, currently Igor Shuvalov. A long-term objective of the Russian Svalbard policy is to maintain and strengthen the Russian

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[30] G. D. Olejnik, op. cit.

[31] 'Norvezhtsy nazyvali menia zhestkim poslom', an interview with Russia's former ambassador to Norway, Y. A. Kvitsinskii, *Sovetskaia Rossiia*, 29 April 2004.

[32] Nadezhda Sorokina, 'Mir i Rossiia. Moskva ne oslabit pozitsii na Shpitsbergene', *Rossiiskaia gazeta*, 23 March 2006; 'Poka ia bezpartijnyi…', an interwiew with Deputy Prime Minister Sergei Naryshkin, *Rossiiskaia gazeta*, 16 Octber 2007.

[33] Nadezhda Sorokina, op. cit.

presence in the archipelago by developing a more coherent policy and diversification of activities.[34]

There is a widespread conviction in Russia that Norway's Svalbard policy is aimed at 'driving Russia away' from the archipelago and adjacent waters.[35] The lack of agreement between Norway, Russia and other major signatory states on key aspects of the interpretation of the 1920 Svalbard Treaty plays a pivotal role in these evaluations. Among the core issues is the question of the status of Svalbard's continental shelf: while Norway maintains that the sea bottom around the archipelago is part of the Norwegian mainland's continental shelf, Russia and other countries claim that Svalbard has its own continental shelf. The parties of the treaty have similarly not managed to agree whether the 1920 treaty applies only to the archipelago itself within the *territorial* waters, or whether it is also applicable to the 200 nautical miles of an Exclusive Economic Zone (EEZ).[36] Because of the stipulations made in the Svalbard Treaty, the answers to these questions have serious implications for the establishment of a regime regulating both marine and petroleum resources around Svalbard. In case of petroleum, it will also have a major impact on the distribution of incomes and Norway's right to apply its own taxation scheme.

Norway's Svalbard policy has for a long time been perceived by Russia as 'unfair' and 'doubtful' from a legal perspective. Russians have claimed that behind it are hidden strategic agendas connected to Western security interests. Kvitsinskii has pointed out that 'one should not forget that Norway is a loyal member of NATO' and that the 'military strategic issues are always observed by the Russian Embassy in Oslo'.[37] Oleinik has

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[34] 'Shpitsbergen – strategicheskaia tochka, kotoraia daet nashei strane vozmozhnost prisutstvovat v zapadnoi chasti Arktiki', *B-port.com,* 17 October 2007; *V strategicheskikh interesakh Rossii*, The Council of Federation of the Federal Assembly of the Russian Federation, No. 12(49) July 2007; Nadezhda Sorokina, op. cit.; G. D. Olejnik, op. cit.; Vagif Guseinov, 'Arkticheskaia strategiia Rossii', *Rossiiskaia gazeta*, 8 November 2007.

[35] *V strategicheskikh interesakh Rossii*; Nadezhda Sorokina, op. cit.; Iaroslav Butakov, 'Moskva–Oslo: arkticheskii spor', *Ruskaia Tsivilizatsia*, www.rustrana.ru, 11 May 2007.

[36] EEZ may be established in accordance with the rules regulating economic zones specified in the United Nations Convention on the Law of the Sea, 1982.

[37] 'Norvezhtsy nazyvali menia zhestkim poslom'.

maintained that Norway's management of Svalbard is a smokescreen for long-term plans for exploitation of the archipelago by NATO as a step towards taking control over the Arctic. Norway's ecological concerns and legal nature protection measures on Svalbard have been perceived as a cover-up for anti-Russian political and economic motives.[38]

The Russian side has repeatedly accused Norway of 'militarization' of Svalbard. The 1920 Treaty obliged Norway 'not to create nor to allow the establishment of any naval base' and 'not to construct any fortification in the said territories, which may never be used for *warlike purposes*' (Article 9).[39] The last phrase has been translated into Norwegian and Russian slightly differently ('i krigsøyemed' versus 'v voennykh tseliakh').[40] The consequences of the linguistic differences are, however, considerable. Norway maintains that although the treaty imposed certain restrictions on military use of Svalbard, it did not fully forbid military presence or self defence.[41] The Russian translation of 'warlike purposes' is broader than the Norwegian one. As a result, Russia refers to the status of Svalbard as 'demilitarized'. Consequently, the Russian authorities perceive every kind of military presence on Svalbard as a violation of the treaty. They point at a number of installations with an allegedly 'double purpose' on Svalbard, mainly monitoring and surveillance systems, which they claim could be used for military purposes by the United States and NATO.[42] The issue has been a reason for concern since Svalbard is seen as

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[38] Ibidem; V. Gundarov, 'Vremia i flot. Rossiiskie pozitsii v Arktike', *Morskoi sbornik,* April 2002; Aleksei Smirnov, 'Treskovaia voina v Arktike', *Novye Izvestia*, 21 March 2007.

[39] Treaty between Norway, The United States of America, Denmark, France, Italy, Japan, the Netherlands, Great Britain and Ireland and the British overseas Dominions and Sweden concerning Spitsbergen signed in Paris 9th February 1920, Lovdata, www.lovdata.no/traktater/texte/tre-19200209-001.html#map0

[40] For a closer look at the issue see Jørgen Holten Jørgensen, *Svalbard og Fiskevernsonen. Russiske persepsjoner etter den kalde krigen*, FNI Report 13, Oslo 2003.

[41] Jonas Gahr Støre, Foreign Minister of Norway, *Orientering om Svalbard. Møte med representanter for NHO og norsk næringsliv i Oslo*, 17 September 2008, www.regjeringen.no.

[42] G. D. Oleinik, op. cit.; A. Smolovskii, 'Voenno–strategicheskaia obstanovka v Arktike. Istochniki ugroz interesam Rossii v Arktike i osnovnye napravleniia prilozheniia usidlii v etom regione dla VMF i drugikh vidov VS RF', *Morskoi sbornik*, part I: no. 11, November 2006, part II: no 12. December 2006; Elena Simonova, 'Blagie namereniia' norvezhtsev', *Na strazhe Zapolariia*, 31 March 2004; V. Vladimirov, 'Istochniki nestabilnosti obstanovki v Zapadnoi Arktike', *Morskoi sbornik*, December 2003; Aleksandr Pronikov, 'Retrospektiva. Severnye sosedi', *Na strazhe Rodiny*, 6 March 2005.

a guarantee of free access to the Atlantic and the world's oceans.

Energy security: a strengthened rationale for the Russian armed forces

There is one additional aspect that is referred to with increasing intensity in the Russian discussion on the economic importance of the Barents Sea. Russian sources point to the possibility that the armed forces, and more precisely the Northern Fleet, could be used in defence of Russia's economic interests. These interests have been determined first of all by access to fish resources and several major oil and natural gas fields on the continental shelf discovered at the end of the 1980s.

Among Russia's priorities in the region, Medvedev and other Russian politicians list exploitation of natural resources, the development of infrastructure, securing national interests on the continental shelf, defining a southern border of the Arctic zone inside Russia, reducing differences in development between the Arctic regions and the rest of the country, and the development of the Northern Sea Route. Russia's Security Council, which played a central role in drawing up the Arctic document, assured that the government has earmarked 'serious economic support' for implementation of the strategy.[43]

Together with the increased regional and international focus on existing and potential energy resources in the region, there has been a move towards an intensification of Russian military activity in the High North. In Russian security discourse, energy, legal and military issues are closely intertwined. The prospect of development of the petroleum industry in the High North has influenced Russian security thinking on the region: it has added to the region's importance and may be generating a new driving force for the Northern Fleet and other security structures in the region. Already today there are indications of interdependence between the development of the Russian oil industry and military activity. As the Minister for Natural Resources, Yurii Trutnev, argued in October 2005 at a

[43] See the press release from the meeting of the Security Council of the Russian Federation on 12 September 2008.

meeting of the Marine Collegiate, once Russia decided to extend the petroleum activity to the continental shelf, the country needed to ensure the necessary means to protect it.[44] In the future, securing the petroleum infrastructure (offshore installations, platforms, pipelines, vessels, etc.) and other economic activity in territorial waters, in the EEZ and on the continental shelf, may be an important task for Russian military forces and other security structures such as the Federal Security Service (FSB) and the Interior Forces.[45] Ambassador Vasiliev has also observed that, with the melting of Arctic ice, the natural protection of Russia's northern border will disappear.[46] Such developments will create additional tasks for the Russian armed forces in this region.

Potential for conflict in the High North?

International attention to the Arctic, together with a conviction that other actors have sensed Russia's weakness and started to oust it from this region, has made the Russian leadership fear that its position in the area could be seriously undermined. From the Russian perspective, there is an increased likelihood that Russia's Arctic 'opponents' – the United States, Norway, Canada, Denmark, and NATO – could challenge Russian security in the region.[47] Mistrust of US and NATO intentions has been reflected in assertions that other states would seek to gain control over Arctic natural resources belonging to Russia.[48] It has increased the prevailing Russian sense of insecurity and contributed to a stronger emphasis on securing what have been defined as national security interests. Russian ambitions in the region have been summarized by Artur Chilingarov, an Arctic explorer and the State Duma's Deputy Spokesman. He concluded

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[44] Alena Kornysheva, 'Mikhail Fradkov zaglianul v shliuzy', *Kommersant*, 31 October 2005.

[45] See Kristin Ven Bruusgaard, *Protecting the energy weapon – new tasks for the Russian armed forces?* FFI-rapport 2007/00141, Kjeller 2007; Irina Isakova, op. cit, s. 2; Vladimir Vysotskii, op. cit.; A. Smolovskii, op. cit.; Lada Karitskaia, op. cit.; *Voprosy obespecheniia natsionalnoi bezopasnosti v raionakh Severa*; V. Selin, I. Kozinskii, E. Tereshchenko, 'Ekonomicheskoe soderzhanie morskoi politiki v Rossiiskoi Arktike', *Morskoi sbornik*, 8 August 2007; 'Vchera v Salekharde govorili o problemakh rossiiskogo Severa'.

[46] 'V Rossii, vozmozhno, postroiat novye atomnye ledokoly dla vosstanopvleniia Severnogo morskogo puti', *Regnum.ru*, 22 October 2008.

[47] A. Smolovskii, op. cit.

[48] See the press release from the meeting of the Security Council of the Russian Federation on 12 September 2008; S. Kozmenko, op. cit.

during a meeting with Putin in 2004 that 'Russia must bite into the North'.[49] Putin described the Arctic as a disputed territory, rich in natural resources, where a serious conflict of interests between rivals is taking place.[50]

In September 2008 the Secretary of the Security Council and former chief of the FSB, Nikolai Patrushev, made the following statement: 'The attention to the Arctic from many countries is growing sharply, the competition between the Arctic states and transnational corporations for access to and control over Arctic energy resources has increased. The activity of other Arctic states – the United States, Canada, Norway, Denmark, including the military field, has grown visibly'. Patrushev claimed that many of these countries were not only developing their infrastructure in an effort to extract important natural resources in the Arctic, but were also building military bases in the region. His conclusion was unambiguous: 'If we will not take action now, we will lose precious time, and later in the future it will be simply too late – they will drive us away from here'.[51]

Russia and most other actors in the High North consider a military confrontation on a large scale in the region as highly unlikely. None of them, however, has excluded limited conflicts, based primarily on control of natural resources, first and foremost energy. According to the Russian daily *Kommersant*, the possibility that the international competition for energy reserves may develop into a military confrontation has been indicated in the draft of Russia's new national security strategy for the period up to 2020. The authors of the document expect increasing rivalry over access to energy resources over the long term. The Barents Sea and other parts of the Arctic are allegedly listed together with the Middle East, the Caspian Sea and Central Asia as regions where the confrontation may

[49] 'Arktika – bogataia spornaia territoriia, za kotoruiu vedetsia borba, zaiavil Putin', *Izvestia*, 27 September 2004.
[50] Ibidem.
[51] See a documentary on the meeting of the Security Council of the Russian Federation on the Franz Joseph Land in September 2008 and an interview with Patrushev, 'Sovbez v serdce Arktiki', Russian state TV channel *Vesti Nedeli*, 14 September 2008, www.vesti7.ru/news?id=12619.

become especially significant.[52] A conviction that competition for natural resources may lead to conflicts and pose a threat to Russia in the future has also been widespread in Russian military circles.[53]

A representative example of the increased emphasis on the defence and security aspect in Russia's economic interests in the North can be found in an article by the aforementioned Russian expert Sergei Kozmenko in *Morskoi sbornik*, a journal of the Russian Ministry of Defence. Kozmenko points out that, now that the Cold War has ended, ideology is no longer a major reason for military confrontation. Instead, economic factors have become prominent. Competition for natural resources, including conflict over access to and control over the world's oceans, cannot be ruled out: a series of local maritime conflicts over 'Russian' maritime resources seems entirely possible.[54] He calls for strengthening of the Russian Navy as the most suitable way to defend the country's national economic interests.

Other important players have also pointed out the potential for rivalry and conflict over natural resources and new maritime transport routes. Two examples are a new American maritime strategy from October 2007[55] and a report on climate change and its impact on international security by the High Representative and the European Commission to the European Council.[56] Similar conclusions were drawn in a report by the US National Intelligence Council published in November 2008. The authors pointed out that the Arctic is unlikely to spawn major armed conflict, although serious near-term tension could result in small-scale confrontations over contested claims.[57]

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[52] Vladimir Solovev, op. cit.

[53] See for instance Y. Martseniuk, S. G. Chekinov, 'Slovo Jubiliaram. O nekatorykh problemakh upravleniia gruppirovkami voisk (sil) na strategicheskikh napravleniiakh', *Voennaia mysl*, 31 January 2005; G. Ivanov, 'Obespechenie bezopasnosti ekonomicheskoi morskoi deiatelnosti gosudarstva', *Morskoi sbornik*, March 2007; V. Vashukov, 'Vremia i flot. Voenno-morskoi flot i obespechenie natsionalnoi bezopasnosti strany v mirnoe vremia', *Morskoi sbornik*, January 2003.

[54] S. Kozmenko, op. cit.

[55] *A Cooperative Strategy for 21st Century Seapower*, U.S. Navy, Marine Corps, and Coast Guard, October 2007, www.navy.mil.

[56] *Climate Change and International Security*, paper from the High Representative and the European Commission to the European Council, 14 March 2008, www.consilium.europa.eu.

[57] *Global trends 2025: A transformed world*, U.S. National Intelligence Council, November 2008, www.dni.gov/nic.

One of the most important geopolitical issues in the Arctic is the existence of longstanding and still unsolved sovereignty questions such as border disputes, questions of delimitation of EEZs and limits of continental shelves, in addition to disagreements on the application of legal principles governing marine passages. The fact that large parts of the Arctic still remain a 'terra nullius' has on the one hand motivated Russia's active engagement in the hope of ensuring Russian control over Arctic territory covering up to 1.2 million km?, beyond the 200 nautical-mile EEZ. On the other hand, it has been a source of concern that Russia may lose still-open territories to 'the others'.[58] Russia filed its first request in 2001, but the United Nations Commission on the Limits of the Continental Shelf demanded more scientific evidence.[59] The Russian authorities intend to submit the second application in 2009 and have thus given a high priority to gathering the scientific data and supporting the country's claims politically.[60]

In August 2007, the official newspaper of the Russian Ministry of Defence *Krasnaia zvezda* wrote that it was necessary to realize that if no legal solution were found to delimitation disputes with NATO countries in the Arctic, the importance of the military presence in the area would increase. Therefore the Russian armed forces needed to be able to ensure the military protection of the country's economic interests in the Arctic region. That meant the need to strengthen the Northern Fleet, border units, and the military infrastructure.[61]

An increased military presence seems to be an essential tool in attaining the goals identified and explicitly emphasized by the Russian

[58] Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Submission by the Russian Federation, www.un.org; Alex Rodriguez, 'Oil Race at the Top of the World', Chicago Tribune, 10 June 2007; 'Russia can claim more of Arctic shelf', BarentsObserver.com, 3 July 2007; Aleksei Didevich, 'Ledovitye uglevodorody', Gazeta, 10 May 2007.

[59] Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Submission by the Russian Federation; Alex Rodriguez, op. cit.

[60] 'Rossiia gotovit zaiavku na rasshirenie granits svoego shelfa – Chilingarov', *RIA Novosti*, 8 July 2007; A. Jakovlev, 'Kto budet vladet severnym poljusom?, *Morskoi sbornik*, October 2007; Alex Rodriguez, op. cit; 'Scientists: Russia can claim land', *The St. Petersburg Times*, 3 July 2007; 'Russian North Pole expedition completed', *BarentsObserver.com*, 2 August 2007.

[61] Andrei Diev, 'Srazhenie za Arktiku', *Krasnaia zvezda*, 8 August 2007.

leadership: an immediate strengthening of the influence and position in the Arctic. It is seen as a means to send a clear signal that Russia is an important player in this region, capable of defending its strategic interests.[62] Although a large scale confrontation in the High North is considered unlikely, the Russian authorities strongly emphasize the importance of a continued and reliable military presence as crucial for securing national interests and attaining the ultimate goal indicated in the new Arctic strategy: assuring Russia the role of a leading Arctic power.[63] With this aim in mind, the Russian Ministry of Defence announced in July 2008 that the Navy would resume its active presence in the Arctic waters, including the zone around Svalbard, on a regular basis.[64]

Admiral Viacheslav Popov, the Chairman of the Committee for National Maritime Policy in the Council of the Federation, argued that a military conflict between Arctic states over gas and oil was unlikely. At the same time, however, he stressed the importance of a military presence as a means to protect national interests. He referred to Canada's plans for strengthening its military presence in the Arctic, and concluded with satisfaction that no country has a stronger military in this region than Russia's Northern Fleet, which is able to defend Russia's interests.[65]

Other examples of this way of reasoning were statements by Lieutenant General Vladimir Shamanov, who is in charge of military training in the Russian Ministry of Defence. In June 2008 Shamanov said that the military had to train in the Arctic to uphold the country's jurisdictional claims. He pointed out the Ministry's plan to establish an Arctic *spetsnaz*

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62 'Vladimir Putin predlozhil sozdat natsionalnyi arkticheskii sovet', *Regnum.ru*, 3 May 2007; 'V natsionalnyi arkticheskii sovet dolzhny voiti predstaviteli MID, Minobrony i pogranichniki', *RIA Novosti*, 4 May 2007; Dmitrii Medvedev, *O zashchite natsionalnykh interesov Rossii v Arktike*; An interview with Nikolai Patrushev, *Izvestia*, 1 October 2008; Vitalii Denisov, 'Budushchee za Arktikoi', *Krasnaia zvezda*, 18 September 2008.

63 *Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike na period do 2020 goda*.

64 'Russia prepares for future combat in the Arctic', *RIA Novosti*, 24 June 2008; 'Russian Navy resumes military presence near Svalbard', *RIA Novosti*, 14 July 2008; 'VS RF obespechat interesy Rossii v Arktike – Minoborony', *RIA Novosti*, 10 June 2008; 'Russian strategic bombers continue Arctic, Atlantic patrols', *RIA Novosti*, 9 July 2007.

65 'Vozmozhnost voennykh konfliktov v Arktike maloveroiatna – ekspert', *RIA Novosti*, 4 June 2008.

as support for Russian northern policy and defence of the county's continental shelf. According to Shamanov, that idea emerged after several nations had disputed Russia's Arctic claims. In a manner typical of Russian security thinking, he interpreted the American military exercise conducted in Alaska one month earlier as a show of force addressed to Russia in connection with international rivalry in the Arctic.[66]

Plans for adjustments in the strategic orientation and pattern of subordination of existing military formations were confirmed by Yurii Ivanov from the Press Office at the Russian Ministry of Defence, quoted by *Murmanskii vestnik* in July 2007.[67] He said, for instance, that a Kola strategic direction would be established within the Leningrad military district. Shamanov similarly maintained that modifications to combat plans in formations and units of the Leningrad, Siberian and Far Eastern military districts were being made with a view to possible military action in the High North. An intention to establish separate military formations assigned to defend Russia's interests in the region were revealed in the new Arctic strategy.[68]

Despite the harsh rhetoric and assumption of a conflict of interest with the Western actors, including the High North and the Arctic, it seems highly unlikely that Russia would head for a conflict in the region. Russia has manifestly shown an ambition to be perceived and treated as a great power to be reckoned with, in the Arctic as elsewhere. At the same time, however, Russia has made it clear that it has no interest in opening a new confrontation line. Two of the region's biggest assets as a promising new energy province and a passage for profitable maritime transport are its stability and predictability. As the report to the WEU Assembly on the northern dimension stated in November 2008, given the importance of the Arctic to Russia, it is likely that the leadership will avoid actions that

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[66] Konstantin Rashchepkin, Andrei Lunev, an interview with Lieutenant General Vladimir Shamanov: 'Podgotovka i oblik armii budut meniatsia', *Krasnaia zvezda*, 24 June 2008; 'Minoborony gotovit arkticheskii spetsnaz', *Rosbalt.ru*, 11 June 2008; 'VS RF obespechaet interesy Rossii v Arktike – Minoborony', *RIA Novosti*, 10 June 2008.

[67] Tatiana Abramova, 'Vymysly i pravda ob arkticheskom spetsnaze', *Murmanskii vestnik*, 1 July 2008.

[68] *Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike na period do 2020 goda*.

might undermine it.[69] One example of this is the actual conduct of the Northern Fleet and the FSB in the disputed maritime zones in the High North. Despite the assertive statements about protecting the interests of Russian fishermen in the Barents Sea against the alleged injustice of the Norwegian Coast Guard, the Russian military structures have in practice avoided provocations such as challenging Norway's authority in the Fishery Protection Zone around Svalbard.

However, international attention to the Arctic encourages calls for more active engagement, including military, to secure Russia's national interests. So far, Russian military ambitions have been more rhetoric than reality. The Russian armed forces have not undergone a profound reform. Nonetheless, steps towards a radical transformation of the defence sector have been taken, and, albeit slowly, in the future they may bring results with implications for the High North. Despite the deteriorating economic situation, the question of military modernization in Russia may be a question of priorities. This applies particularly to the nuclear deterrent, which plays a fundamental role in Russia's security. Modernization of nuclear forces has thus greater chances of being continued and carried out, even in worsened financial conditions. As a result, in the future, strengthened and more accessible military capabilities may contribute to create situations where it will be easier to make use of them.

Although use of force by Russia in pursuing foreign policy goals in the High North seems unlikely today, it cannot be completely ruled out. Acting in compliance with international law has to date been in Russia's own interest. Although global trends at the beginning of 2009, marked by a mutual willingness to push a 'reset button' in US-Russian relations, are reason for moderate optimism, there is still a risk that Russia's relations with the United States and other Western actors might deteriorate further. Hence, development in the region ought to be seen in the long-term view, with an assumption that the military situation may develop in different directions, and with less favourable scenarios.

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[69] *Europe's northern security dimension*.

III. CONCLUSIONS AND IMPLICATIONS

As argued in this paper, Russia has vital military and economic interests in the High North, which have been vocally accentuated by the Russian leadership on the rising tide of worldwide attention to the region. Growing international interest in the Arctic, together with a range of unresolved border disputes, has fuelled the Russian sense of insecurity and may spur a future increase in Russian military activity in the region.

It is still too early to assess whether Russia is beginning to implement a more coherent and better coordinated policy for this region. Although, according to official statements, the new Arctic strategy has been endorsed by the Russian government, experience shows that it can take a long time before ambitious objectives, even those that have received strong attention from the authorities, will be realized, if at all. The financial slump and the dramatic fall in revenues from energy export have highlighted the fragile foundations of Russia's ambitious economic and military projects. In a broader perspective, the uncertainty about Russia's capability to carry through the ambitious objectives in the timeframe indicated may be reinforced by the Russian leaning towards authoritarianism, which in the long run may also undermine the effectiveness of the institutional base and affect implementation of the strategy.

Although the financial crisis and relatively low energy prices may temporarily slow down the pace of development of the petroleum industry in the Western Arctic, the situation should be seen in a long term perspective. A growing global demand for gas and oil, combined with inevitably dwindling reserves, will argue compellingly for exploration of new deposits. Climate changes will most probably continue 'opening' the Arctic to economic and industrial activity. It is thus likely that Russia will continue to strive to strengthen its positions in this region. The ongoing processes of determining the outer limits of continental shelves of the Arctic states, under the terms of the Convention on the Law of the Sea, will contribute to an increased regional and international focus on the region, possibly adding to the Russian sense of insecurity.

Miscommunication or conflict of interests?

Analysis of the Russian security and defence perspective in the High North shows that the question of relations with Russia in the region is inevitably connected to the problem of managing Russia's relations with the United States and NATO. Regional cooperation will be to a great extent an outcome of developments within that general framework.

What from the Western perspective appears to be a problem of misperceptions tends to be viewed by a large part of the Russian current leadership and society as a genuine conflict of interests. Russia's recent strong focus on the Arctic should be seen as part of a broader foreign policy agenda, where an old-style approach to defence of national interests, more often than not defined in opposition to the West, has been unequivocally accentuated. Although the Russian approach to the High North is not one-dimensional, in terms of defence and security the United States and NATO emerge as a negative point of reference. Russia's mistrust of other actors and their intentions in the High North concerns both the Western military and non-military presence. Russians claim to discern behind a range of activities a broader anti-Russian agenda aimed at weakening Russia's positions and driving it away from the High North in order to use the region for American and NATO interests. This vision is based on the assumption that Russian and Western interests are divergent and that the United States seek to counter Russia and limit its development.

The Russian assessment of international relations in the High North in terms of a zero-sum game entails a conflictual potential and has thus several critical consequences. In favourable conditions these perceptions and attitudes may easily have a negative impact on bilateral and multilateral cooperation in the High North, especially if Russia's relations with the West deteriorate further. The most recent example was the halt of military cooperation between Russia and NATO in the wake of the war in Georgia in August 2008. A relatively broad program for military cooperation between the Norwegian armed forces and the Northern Fleet had to be frozen as a result.

The scope and depth of Russian threat perceptions in the High North, widespread on different levels and in different parts of Russian society, imply that these convictions are genuine. They also match the overall Russian security discourse. There have been no preconditions to expect them to evolve in a more favourable direction for the West in the foreseeable future. One side of the problem is that of all the dimensions of the transition from one political, economic and social system to another, it is mindset that changes most slowly. What is even more important, there have been no incentives to encourage and advance such changes under the current Russian leadership. On the contrary, the Russian authorities have continued to place heavy emphasis on their separateness from the West. This attitude, combined with the re-evaluation and exaltation of selected elements of the Soviet 'glorious' past, has been encouraged from above primarily for the domestic political and economic benefits of the political and military elites. Defining the Russian identity and interests in opposition to the West has paid dividends for multiple groups of interests in Russia. One example of that is the old vision of Russia as a 'besieged fortress', which has been exploited to reinforce Putin's sustained popularity in Russia. The growing sense of threat from the West has also restored the need to rearm with both conventional and nuclear weapons. The obvious beneficiaries of such a development are the armed forces and the military industrial complex. Another domestic dimension of this strategy is the renationalization of key sectors of the Russian economy, presented as protection from the perceived threat from foreign economic forces. There is a potential danger – not to be completely ruled out – that, in a worsened economic situation, a strategy of sharpening anti-Western rhetoric to provide an outlet for social discontent may take an even more radical turn.

But equally, as indicated earlier in this discussion, the global economic downturn has limited Russia's room for manoeuvre, and the signals sent by Russia's political leadership at the beginning of 2009 point in a more positive direction. In order to focus on addressing domestic problems and, not least, attract desperately needed foreign capital, the Russian government has adopted more conciliatory positions and may choose to down-

scale its ambitions on the international stage.[70] In the best case, the new-found sense of the urgency of cooperation may create a 'window of opportunity' for diplomatic progress in many of the vital issues in US-Russian relations, including the emerging challenges in the Arctic.

Lessons for NATO and the West

There is no doubt that sustaining cooperation with Russia remains of crucial importance to all actors involved in the High North. Russia's active cooperation on a number of issues – from military and environmental to resource management, is central to further peaceful development in the region. There will be little or no chance of reaching satisfactory results without Russia's participation.

We may assume that the Western presence and activity, especially of a military character, will continue to be perceived as anti-Russian, regardless of the shifting temperature in US-NATO-Russian relations. As explained above, NATO's military presence, sometimes in the form of exercises, has been monitored by Russia with suspicion. The scenario of the exercises has given another cause for concern. Russian politicians, military representatives and experts have pointed out that such exercises have often been based on an armed conflict between two states for control of energy resources on the continental shelf of the Barents Sea.[71] NATO's exercise 'Battle Griffin-1999', in particular, has often been referred to in order to accuse NATO of Cold War attitudes.[72] Russian military representatives, politicians and others have pointed out that the scenario of the exercise was a crisis situation in the High North escalating into a war between two states. One of the countries was a respected modern democracy with developed international relations, including membership in NATO. The other one was unstable, with a developing economy, and was

[70] See for instance the speech delivered by Vladimir Putin at the opening ceremony of the World Economic Forum in Davos, Switzerland, 28 January 2009 and the speech by Sergei Ivanov at the 45th Annual Security Conference in Munich in February 2009.

[71] G. D. Oleinik, op. cit.; Elena Simonova, op. cit.; V. Vladimirov, op. cit.

[72] *Interesy Rossii na Severe Evropy: v chem oni?*, Council for Foreign and Defence Policy (SVOP), 10 January 2001, www.svop.ru/live/materials.asp?m_id=7008; Elena Simonova, op. cit.; V. Vladimirov, op. cit.; G. D. Oleinik, op. cit.

evaluated as a threat to peace in the world.[73] The Russian sources maintained that these two countries were obviously Norway and Russia.[74]

Certain convictions discussed in this paper, however irrational and unfounded they may appear from the Western perspective, should not be ignored. Some steps may be taken to avoid fuelling some of these perceptions. To the extent possible, Western military activity in the High North should be transparent, include Russia and avoid appearing unnecessarily provocative. Military exercises in the immediate proximity of Russian borders, as well as the scenarios of such exercises, are obvious examples. It might be worth considering Russia's participation in the 'Cold Response' exercise, and not only as an observer. Military cooperation in the region is an important contribution to building up a stronger relationship with Russia and to changing negative images of each other. An example of a positive development is Russia's cooperation with Norway and other Arctic states in the region, including military exercises such as the 'Northern Eagle' (United States-Russia, and lately with Norwegian participation). Another important contribution to peaceful development in the High North that increases the level of mutual security is cooperation in the field of crisis management and search and rescue, including field training exercises.[75]

The leadership of the Northern Fleet and the FSB has shown a will to maintain and even expand and deepen cooperation in the region.

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[73] Ibidem; V. Gundarov, op. cit.

[74] Ibidem.

[75] 'Barents Rescue' is a series of field training exercises with focus on search and rescue and crisis management operations, organized and conducted by the countries within the framework of Barents Cooperation. The exercise rotates between Sweden (2001), Norway (2005), Finland (2007) and Russia. Barents Rescue 2009 is to be organized by Russia in the oil export terminal of Varandei, a key port for shipping of resources from Timan-Pechora province. Together with Norway, Finland, Sweden, as well as the US and Canada, the organizers will focus on the scenario of a wrecked tanker threatening the environment of the Nenets Autonomous Okrug, *Barents Rescue 2007*, The Crisis Management Centre, Finland, www.pelastusopisto.fi; 'If an oil tanker crashed in the Arctic', *BarentsObserver.com*, 25 September 2008. Governments in the Barents Euro-Arctic Region signed on 11 December 2008 in Moscow an agreement on cooperation in the field of emergency, prevention, preparedness and response. For more information, see the Barents Euro-Arctic Council's website: www.beac.st/?newsid=9347&deptid=27323&languageid=4&NEWS=1.

However, their room for manoeuvre is limited and depends on the political line decided in Moscow. Communication between the region and the centre has proved to be less than satisfactory. In the future, greater focus may be placed on drawing the attention of central decision to positive developments in the region.

In longer perspective, further development of cooperation with Russia in the High North will depend not least on how the Obama administration approaches Russia and on a range of fundamental international problems that have long soured mutual relations – and on Russia's response to it. However the situation unfolds, Russian perceptions and interests should be taken into account when designing policies for the High North. There should be a constant focus on shared interests and common goals. Nonetheless, real conflicts of interest and approach may remain. Thus, Western countries and organizations with a stake in the region must face the challenge of finding and maintaining the appropriate balance between on the one hand accommodating legitimate Russian security concerns and on the other securing their own vital interests.

SECURITY PROSPECTS IN THE HIGH NORTH AND THE UNITED KINGDOM

Clive Archer*

Introduction

The United Kingdom may not be seen as an Arctic power, yet it has interests in the region, particularly in the area described as 'the High North' by the Norwegians. These interests were particularly strong in the past and their nature has sometimes been mainly economic, sometimes more military. More recently environmental concerns have joined the list, and the shadow of security may cause Britain to look over its shoulder towards the Arctic. This chapter examines the current main security challenges in the High North and the United Kingdom's interests in meeting them, especially within NATO and the EU.

The move from Cold War to post-Cold War provides the background to Britain's Arctic interests. Mr Gorbachev's Murmansk Initiative in October 1997 indicated a more 'non-zero-sum' approach to Arctic cooperation by the Soviets. During the 1990s, the Barents Euro-Arctic Council and the Arctic Council were established and there was an opening up of trade in the region. The interests of indigenous peoples were given greater voice. Currently, the Arctic/High North could become an area of potential contest and even conflict, not just over resources but over questions of jurisdiction. There are new environmental problems, and the potential for greater resource and transport exploitation.

The chapter covers UK's interests in and potential contributions to these issues. By the end of the Cold War, the UK's interests were as a

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NATO power, in the sources of energy and in environmental issues. Presently, UK interests can be seen as being in the functional areas (such as resources and the environment), soft security issues, jurisdictional questions and the institutions.

On security, the UK has a concern that tensions between Russia and the West in the Arctic should not lead to renewed military confrontation. However, since the 1980s, the UK's military engagement has shifted from the North Atlantic to the 'out-of-area'. Furthermore, the UK's views on jurisdictional issues (e.g. Svalbard) do not always coincide with those of Norway.

In the functional areas, the UK interests are strongest in petroleum and fish-stocks, with a continued concern about environmental issues, including research on the effects of global warming. Involvement in transport is marginal, but may grow. Research generally has traditionally been a strong card. This chapter places these issues in context; in reality, UK interests are small compared with those of other regional powers and with UK interests elsewhere.

The UK is involved as an observer in the two regional institutions and is an important member of NATO and the EU. The EU is developing an Arctic policy but NATO will still be expected to deal with hard security issues. So far, the UK involvement is rather sparse, though there is greater interest in resource and environmental issues. In the long run, there may be a return to a more engaged UK interest as the region becomes more important in resource and environmental terms and even an area of power contention. Meanwhile, the UK can increase its awareness of the Arctic issue and cooperate, not least through NATO, with like-minded states.

This chapter provides an overview of the High North in security terms and a short history of United Kingdom interests in the region. It then examines how these interests have changed and how the UK might pursue its security concerns in the region. In particular it examines the institutional frameworks through which the UK can advance its interests, especially those that are security related.

Security in the High North

After the end of the Second World War, the High North was not immune from the descent of the Cold War on East-West relations. Northern Europe, let alone the Arctic, was anyhow not central in this new tension, but the region had considerable importance in both naval and bomber strategy. In particular, the Arctic route was the shortest for bombers—and missiles—to take between the US and the Soviet Union. On the western side, by the early 1950s a series of US bases was established in Iceland and Greenland and listening facilities installed from Canada to Norway. The lead country in this activity, as in NATO, was the United States rather than the UK. By the end of the 1950s and 1960s, US interest in the High North had become less about the movement of its strategic bomber fleet and transit across the Atlantic and more about early warning of an attack and communications support of the US deterrent. By the mid-1980s, space surveillance, command, control, communications and intelligence (C3I) and support of anti-submarine activities could be added to these tasks.[1]

The period of 'New Cold War' that emerged at the end of the 1970s and early 1980s, saw an increase in the strategic importance of the Norwegian and Barents seas as the enlarged Soviet Northern Fleet pushed out from Murmansk into the Atlantic and the United States navy introduced its new maritime policy to counteract this Soviet presence. It seemed that the High North in particular was going to become a stage for increased tension between East and West. The United Kingdom found itself tracking Soviet activity in the north and providing some of the forces to match the Soviet presence in the seas off the British Isles.

A change in this situation came with the rise of Mikhail Gorbachev as leader of the Soviet Union in the mid-1980s. As part of his 'New Thinking' he made his Murmansk Speech, which contained a number of proposals for East-West cooperation in both the military and non-military aspects of the Arctic region. References to the possibility of joint

[1] Clive Archer, 'Greenland, US Bases and Missile Defence. New Two-level Negotiations?' Cooperation and Conflict, vol. 38 (no.2, 2003), pp.132 & 135.

action in the utilization of Arctic resources, environmental protection, scientific cooperation and the opening of the Northern Sea Route were noticeable aspects of the speech.[2] Though the initial Western response was cool,[3] there was an eventual increase in cooperation in scientific activities, between indigenous peoples and on environmental matters. The change on the military side was to come with the wider East-West agreements made in the late 1980s and then with the end of the Cold War and the collapse of the Warsaw Pact, communist governments in east and central Europe and the Soviet Union. Nevertheless the Murmansk speech heralded a 'new era in the Arctic' contributing to 'the desecuritization of interstate relations in the region'.[4]

With the end of the Cold War, the barriers across the Arctic started to come down. Indigenous peoples, previously divided by ideological differences, had already partly come together in the Inuit Circumpolar Council but could now travel across formerly forbidden frontiers. Polar scientists intensified their cooperation with the establishment in 1990 of the International Arctic Science Committee (IASC), an Arctic Environmental Protection Strategy was agreed, and, more generally, the Barents Euro-Arctic Council (BEAC) was established, and the Arctic Council was set up by the eight Arctic countries[5] in 1996.

Particularly during the 21st century, the security importance of the Arctic has been affected by two further elements. First, there has been an increased realization of the effects of global warming on the Arctic region.[6] These consequences have implications for communities in the Arctic, and also affect access, transport and natural resources, not always

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[2] Mikhail Gorbachev, 'Gorbachev – speech in Murmansk', *Novosti Press Agency Release*, 2 October 1987; Clive Archer, 'Western Responses to the Murmansk Initiative', *Centrepiece 14*, (Aberdeen: Centre for Defence Studies, 1989).

[3] Archer, *op.cit.*.

[4] Kristian Åtland, 'Mikhail Gorbachev, the Murmansk Initiative, and the Desecuritization of Interstate Relations in the Arctic', *Cooperation and Conflict* vol. 43 (no. 3, 2008), pp. 289-311.

[5] Russia, the United States, Canada, Denmark, Finland, Iceland, Norway and Sweden.

[6] See, for example, Arctic Climate Impact Assessment, *Impacts of a Warming Arctic: Arctic Climate Impact Assessment*, (Cambridge: Cambridge University Press, 2004), at http://www.acia.uaf.edu (accessed 2 January 2009).

negatively. Nevertheless, in terms of societal security and environmental security, the Arctic has become a key region.

Secondly, relations between the Arctic states have been affected by an increased Russian nationalism and introspection. This was displayed in the much publicized incident of a Russian mini-submarine involved in planting a Russian flag at the North Pole that received often dramatic media coverage.[7] It can be seen as part of a longer Russian campaign with regard to the ownership of resources in the offshore Arctic region, underpinning Soviet and then Russian claims concerning the jurisdiction of Arctic waters.[8] The reasoning behind Russian actions in the region is not always clear, though so far the Russian government has stressed a willingness to abide by the precepts of the Law of the Sea in the Arctic.[9]

As a result of these developments, the Arctic region has attracted a good deal of attention from organizations, groups and the press. The European Union has the makings of an Arctic strategy.[10] One reason for the November 2008 vote by Greenlanders for greater independence was to have a more direct voice in the international forums on the future of their part of the Arctic.

The above brief outline of the changing security significance of the Arctic since the Second World War portrays a region that has altered in

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[7] BBC News, 'Russia plants flag under North Pole', *BBC News*, 2 August 2007 at http://news.bbc.co.uk/1/hi/world/europe/6927395.stm (accessed 2 January 2009).

[8] Commission on the Limits of the Continental Shelf, *Illustration of limits of the economic zone and the continental shelf of the Russian Federation* at http://www.un.org/depts/los/clcs_new/submissions_files/rus01/RUS_CLCS_01_2001_LOS_1.jpg (accessed 24 December 2008).

[9] For two different readings of the Russian approach see Scott Borgerson, 'Arctic meltdown. The economic and security implications of global warming', *Foreign Affairs*, March/April 2008, at http://www.foreignaffairs.org/20080301faessay87206/scott-gborgerson/arctic-meltdown.html (accessed 2 January 2009), and Vladimir Frolov, 'The Coming Conflict in the Arctic. Russia and US to Square Off Over Arctic Energy Reserves' *Global Research*, July 17 2007 at http://www.globalresearch.ca (accessed 23 December 2008).

[10] A. Aioli, The European Union and the Arctic, (Copenhagen: Nordic Council of Ministers, 2008), and Commission of the European Communities, The European Union and the Arctic Region. Communication from the Commission to the European Parliament and the Council. Brussels COM 763 (2008), (Brussels: Commission of the European Communities, 2008) at http://ec.europa.eu/maritimeaffairs/pdf/com08_763_en.pdf (accessed 2 January 2009).

importance as the wider strategic situation has developed, and as its resources have grown in importance. Also, as understandings of the concept of security have matured, so has the security position of the Arctic. How then has the United Kingdom responded to such changes? What have been UK interests there and what, in particular, are their current security concerns?

UK interests in the Arctic

Early interests

British interests in the Arctic region go back a number of centuries. From the 16th century, English and Scottish explorers were involved in the hunt for the North-West and North-East passages to the Orient. Activity was not just limited to scientific curiosity or opening up trade routes but included hunting, mainly whales and seals, and fisheries. This led to competition, especially with the Dutch, and a number of ill-founded attempts (outside of Canada) to assert English, then British sovereignty in Arctic areas, not least Spitsbergen.[11] Later British explorers took to the Arctic, mapping regions there.[12] Indeed there was even an almost mythical Arctic council in mid-19th century London of those with knowledge of the region.[13] By the 20th century, UK commercial interest in the region was in whaling, which declined in the early decades of the century, and fishing, mainly in the seas near Iceland and Norway. It thus was in British interests that the seas were open for all to exploit, a doctrine that led to a number of 'Cod Wars' with Iceland from the 1950s to the 1970s.

In more modern times, the United Kingdom non-security interest in the Arctic has been in the form of science and resources. Scientific interest continued from the Victorian period into the 20th century, not least

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[11] See for example M. Conway, No Man's Land. A History of Spitsbergen from its Discovery in 1596 to the Beginning of the Scientific Exploration of the Country, [Damms Antikvariat, 1906] Oslo: Norbok 1995) pp.122-5.

[12] William Scoresby, *An Account of the Arctic Regions*, (Edinburgh: no publisher, 1820).

[13] E. Baigent, 'Arctic council (*act.* 1851)', *Oxford Dictionary of National Biography*, online edn, Oxford University Press; online edn, Oct 2007 at http://www.oxforddnb.com/view/theme/95281, (accessed 25 Nov 2008).

with the establishment of the Scott Polar Research Institute (opened in 1920) and the value of Arctic meteorological knowledge for the UK in the Second World War.[14]

Traditional British security interests in the region were associated with the freedom of the seas and the maintenance of the UK's right to ply the seas in the regions near the Arctic. In the Second World War, every effort was made to prevent Germany from obtaining dominance in the air and seas around the Arctic. This became more difficult with German control of Norway, as can be seen in the fate of some of the 'Murmansk Run' convoys. With local help, residual German military activity was cleared from Greenland, Iceland and the Faroe Islands, but Svalbard proved more difficult. In the end, a joint British-Canadian-Norwegian operation evacuated the Soviet miners and Norwegian population from there and destroyed facilities that could be used by Germany.

The Cold War

In the early days of the Cold War, the Arctic was a relative sideshow for the United Kingdom. It limited itself to an interest in Norway, though its position there was gradually taken over by the US. The enduring interest remained the tracking of ships, submarines and airplanes coming from the north of the Soviet Union out to the North Atlantic.

Especially from the late 1970s until the end of the Cold War, the Soviet Union built up its military presence in northern Russia and NATO countries responded with their own increased military activities in the seas of the High North. During this time, two key aspects of UK defence were those of the defence of the homeland and the waters immediately surrounding the UK, and the monitoring of the North Atlantic and the seas leading into it from Europe. The UK armed forces thus had a sizeable interest in Norway and the seas around it. The UK was part of the NATO plans to reinforce Norway, and UK aircraft and vessels often shadowed their Soviet counterparts in these seas. The region was important in com-

[14] C.O. Schuster. *Weather War*, at http://www.srh.noaa.gov/bna/educate/atc/ww1.htm (accessed 25 November 2008).

munications and surveillance associated with the defence of the UK, though a keen interest was shown in other aspects.[15]

A change started with the coming to power of Michael Gorbachev in the Soviet Union and, especially, after his Murmansk Initiative. To a certain extent, this indicated an opening up of what had previously been a very closed part of the world – the Soviet Arctic. The UK government, like its NATO counterparts, was sceptical about the naval confidence-building measures in the Murmansk Initiative which certainly did not fit in with the NATO view, but was more responsive to the non-military side.[16] Nevertheless, the more 'non-zero-sum' approach to security seen in the Murmansk Initiative represented a change in the approach of the Soviet Union and proved to be typical of President Gorbachev's approach to relations with the West.

Post-Cold War

In the post-Cold War period, British interests in the Arctic can be seen under the headings of exploration and science, the environment, commercial interests and security issues.

The United Kingdom has continued with its long established scientific interest in the Arctic region. The Scott Polar Research Institute in Cambridge has maintained important activity in the Arctic region and, nationally, the National Environmental Research Council (NERC) has both financed and to some extent coordinated activity in Arctic sciences. NERC and the British Antarctic Survey (BAS) have maintained an Arctic research station at Ny Ålesund, Svalbard.[17] A conference on Arctic science, held in London in March 2008 and sponsored by the British Academy, demonstrated the wide interest in the subject within the UK, but little research money followed that meeting.[18]

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[15] Archer 'Western responses', op.cit.; Åtland, op.cit.

[16] Åtland, op.cit., pp. 298-306.

[17] Natural Environment Research Council, *NERC's Arctic research base* at http://www.nerc.ac.uk/research/areas/polar/arcticbase.asp (accessed 2 January 2009).

[18] British Academy *The Inhabited Arctic: Humanities and Social Science Research in the Circumpolar North,* Tuesday, 4 March 2008 at http://www.britac.ac.uk/events/2008/arctic/index.cfm (accessed 25 November 2008).

Much of the UK's scientific interest is connected with the scientific importance of the environment in the Arctic and High North for the United Kingdom. The environment in the region is both affected by and affects the British Isles. In the past, UK governments have clashed with Norwegian counterparts over the 'export' of pollutants to Norway, carried there either by sea or the prevailing wind. In particular, the role of UK industries in creating the "acid rain" that fell on Scandinavia in the 1970s and 1980s was contested by UK governments until a joint UK-Norwegian study showed that those industries were an important source. The decline of British heavy industry and changes in the environmental policies covering the remaining industries led to a reduction in UK-sourced "acid rain". Another, perhaps more long-term, possible source of pollutants for Norway has been the UK nuclear industry. Norwegian governments have complained that the Gulf Stream Drift has carried radioactive material from UK nuclear power stations on the west and north coasts of the United Kingdom up to the northern coasts of Norway.[19]

Since the 1980s there has been an increased awareness in the UK of the possible effects of global warming on the Arctic and the results this may have for the rest of the world, not least the islands of the British Isles. British scientists have played an important role in gathering and testing the science of global warming and in pointing out possible consequences for the UK.[20]

The United Kingdom's main commercial interest in the High North region and the Arctic more generally has mainly been in hydrocarbons. UK firms, with BP in the lead, have well-established interests in the Arctic region. In the future, one of the main issues will be the extent to which these resources can be utilized without harm to the environment.

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[19] See, for example, 'Norway concerned over reopening of THORP facility at Sellafield', *Norway Society & Policy*, 2007, at http://www.norway.org.uk/policy/environment/thorp.htm. However, for a more optimistic Norwegian view see State of Environment Norway, 'Releases of technetium-99 from Sellafield' (Oslo: Environmental Directorates of Norway, 2009) at http://www.environment.no/Mal-og-nokkeltall/Mal-og-nokkeltall/Radioaktiv-forurensning/Tiltak-mot-historisk-forurensning/Utslipp-av-technetium-99-og-cesium-137-fra-Sellafield/Technetium-99-fra-Sellafield/

[20] Arctic Climate Impact Assessment, op.cit.

Clearly the UK government is aware of this dilemma and is anxious to work with others to solve it.[21]

In the more traditional security area, the UK's interests and activities have changed considerably since the end of the Cold War. Of course, the UK has a history as an imperial power and, as such, performed military tasks throughout the globe. During the Cold War, its main centre of activity increasingly became the North Atlantic area, especially when the Labour Government, elected in 1964, gave up a military role East of Suez. Britain's role outside the NATO area was residual, though, as was seen in the Falklands campaign, even by 1982 the country could still project considerable power to outside this region, given a little help from its friends.

Since the end of the Cold War, the UK, like NATO, has gone out of area in its defence posture. A short exposition of the UK's defence and security strategy and policy underlines this move. The National Security Strategy of the UK, 2008, identifies a number of threats and risks such as 'international terrorism, weapons of mass destruction, conflicts and failed states, pandemics, and trans-national crime'.[22] The document recognizes the widening of the official understanding of the term 'security' to include human security as well as state security.[23] Nevertheless, the government is committed to being 'hard-headed' towards risks, aims and capabilities and has a preference for multilateral responses.[24] Within government, an integrated approach to security is the aim, which means a response across the functional divisions of government departments.[25] Among the specific threats and risks mentioned, terrorism comes first, followed by nuclear weapons and other weapons of mass destruction, transnational organized

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[21] Foreign and Commonwealth Office, 'British Ambassador writes in Scandinavia Oil and Gas magazine (18/08/2008). Oil And Gas: Continued Growth but Less Carbon' at http://www.fco.gov.uk/en/newsroom/latest-news/?view=News&id=5612069 (accessed 31 December 2008), p.2.

[22] United Kingdom Cabinet Office, *The National Security Strategy of the United Kingdom: Security in an Interdependent World 2008* at http://interactive.cabinetoffice.gov.uk/documents/security/national_security_strategy.pdf (accessed at 23 December 2008) p.2.

[23] Op. cit., pp.2-3.

[24] Op. cit., pp.6-7.

[25] Op. cit., p.8.

crime, and 'global instability and conflict, and failed and fragile states'. These are followed by civil emergencies (resulting from disease or extreme weather) and state-led threats to the UK.[26] Perhaps of greater relevance for this chapter are the listed drivers of international security, which include challenges to the rules-based international system, climate change, competition for energy, poverty, inequality and poor governance, and socio-economic global trends.[27] These factors, and the insecurities and risks they may bring, are interdependent.

The Arctic and High North is scarcely an area for those main threats to the UK listed in the 2008 National Security Strategy. However, it is the scene for a number of the drivers of security mentioned, especially climate change and competition for energy. Furthermore, there is the danger that the region could become 'defined by dispute and exploitation'.[28] Indeed there is some indication that the Ministry of Defence has given some consideration to the Polar regions when looking ahead in security matters. The Future Maritime Operational Concept developed by the Development, Concepts and Doctrine Centre of the UK Ministry of Defence mentions the Polar regions four times. Examining the strategic context for the Concept to 2025 it places under the heading of 'Oceanic Competition' the following:

> The high seas, the deep ocean and the Polar regions [footnote: As well as on the airspace above] are likely to become areas of increased competition as advanced technology, increased accessibility and resource pressure encourage more intensive exploitation by states and commercial interests. Competition will centre on fishing, deep sea mining and the extraction of oil and

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[26] Op. cit., pp.10-15

[27] Op. cit., pp.16-22

[28] Baroness Taylor, *Speech delivered by the Minister for International Defence and Security, at the Joint NATO/Icelandic Government conference, Reykjavic* [sic]*, Iceland on 29 January 2009* at http://www.mod.uk/DefenceInternet/AboutDefence/People/Speeches/MinISD/20090129JointNatoicelandicGovernmentConferencesecurityProspectsInHighNorthReykjavicIceland.htm

> gas, but may possibly extend to transportation and rights of passage.[29]

The deduction from this is a broad one, that 'the UK will need to maintain an active presence at sea, with deployable military capabilities capable of operating across the whole conflict spectrum, in order to sustain economic growth, protect its interests and project influence in the wider world.'[30] More specifically, the Arctic is mentioned in terms of the effects of global warming: 'The progressive thawing of the North polar ice cap, the opening of the North-East and North-West Passages and increased accessibility across the top of the world will introduce new sources of risk and opportunity, as the topography of the region alters.'[31] The resulting conclusion is 'Deployed Maritime forces are likely to have to operate in an increasingly crowded and complex environment in which they will need to be able to act quickly in response to indications of crises and unexpected situations.[32] Furthermore, there is mention of the exploitation of maritime resources:

> The exploitation by states and multinational enterprises of mineral, energy and other natural resources in Exclusive Economic Zones (EEZs) and beyond will challenge existing norms of international law, as economic imperatives and competition extend to the exploitation of the deep ocean and to the polar regions.[33]

All this is likely to lead to increased tension between states and 'to increased and more widespread instability and crisis, particularly in the previously under-exploited deep ocean, polar and littoral areas.'[34] This

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[29] Joint Doctrine and Concepts Board, *The Future Maritime Operational Concept 2007*, (Shrivenham: The Development, Concepts and Doctrine Centre, Ministry of Defence, 2007) p.1—4.
[30] Ibid.
[31] Op. cit., p.1—5.
[32] Ibid., italics in original.
[33] Op. cit., p.1—10
[34] Ibid., italics in original.

posits a pessimistic view of the Arctic region, perhaps fitting for military planners, but is in contrast to the view expressed by the Minister for International Defence and Security at the NATO Reykjavik conference, where she placed emphasis on the dangers presented by the polar ice caps melting and advanced a scenario similar to the above as a 'worst case'.[35] She also referred to the UK's first Arctic strategy endorsed by the Defence Board in December 2008, though this does not appear in the public minutes of the Board.[36]

This future strategy looks forward to 2025, what may be called the near future. Nevertheless it provides a contrast with British defence deployments in 2008. These were dominated by the two operations in Afghanistan and Iraq, with a sizeable army and air force element still based in Germany.[37] The only UK forces that have a presence in the region are those associated with the UK Atlantic Patrol Task (N) Maritime force in the North Atlantic, and a modest army and air force presence in Canada.[38]

Where is the UK on Arctic security matters?

What can be said about the UK's security interest in the High North and Arctic region? First, since the end of the Cold War, the British interests and presence there have diminished considerably from the Cold War period. Secondly, the very nature of the official understanding of security has changed, with elements such as environmental considerations and the competition for resources playing a more important role. Thirdly, as a result of this expanded understanding of security, there is evidence of a greater official engagement in areas such as the Arctic with its interplay of environmental, energy and jurisdictional issues. Finally, whether defence and security resources are devoted to the region by the UK in the

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[35] Taylor, op.cit., pp.2-3.

[36] See Defence Board, '13th Meeting Defence Board 18th December 2008, Summary of Conclusions' at http://www.mod.uk/NR/rdonlyres/F432C229-CDBB-4296-AC5A-06C6BD6BA5AB/0/18dec08_summary.pdf

[37] International Institute for Strategic Studies, *The Military Balance 2009*, (London: Routledge for IISS, 2009), pp.158-63.

[38] International Institute for Strategic Studies, op.cit., pp.162-3

future, even on an irregular basis, must be open to question as defence capabilities are cut back and other deployments demand priority. Nevertheless, there may be an increased UK diplomatic interest in the region as Law of the Sea issues come to the fore, and the United Kingdom may involve itself through multilateral institutions.

The Institutions

The United Kingdom can enjoy a diplomatic involvement in the Arctic region through the UN Convention on the Law of the Sea, two regional institutions and two more general ones.

The United Kingdom acceded to the UN Convention on the Law of the Sea in August 1997. A number of submissions and comments on submissions have been made to the Commission on the Limits of the Continental Shelf (CLCS), whose work is of vital interest to that of delineating the Arctic offshore areas. Russia submitted its views on the outer limit of the continental shelf to the north of the Russian Federation in 2001 and there were responses – mainly challenging the Russian position and remarking on the lack of evidence on which it was based – by Canada, Denmark, Norway and the United States.[39] Likewise the Norwegian submission produced reactions from Denmark, Iceland, Russia and Spain.[40] So far, the United Kingdom does not seem to have expressed its opinion to the CLCS on these issues. However, the UK has over the last few years firmed up its views on Svalbard, calling a meeting of states interested in Svalbard to discuss objections to exclusive Norwegian rights in the Svalbard offshore area.[41]

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[39] Commission on the Limits of the Continental Shelf, *Illustration of limits of the economic zone and the continental shelf of the Russian* Federation, 2001, at http://www.un.org/depts/los/clcs_new/submissions_files/rus01/RUS_CLCS_01_2001_LOS_1.jpg (accessed 24 December 2008).

[40] Commission on the Limits of the Continental Shelf, *Receipt of the Submission made by Norway to the Commission On Limits Of Continental Shelf*, 2006, at http://www.un.org/Depts/los/clcs_new/submissions_files/nor06/clcs_07_2006_los_e.pdf (accessed 31 December 2008).

[41] See Torbjørn Pedersen, *Conflict and order in Svalbard waters*, (Tromsø: University of Tromsø, 2008), p.253. See also Jonas Gahr Støre, 'Svalbard – an important area', 2006, at http://www.regjeringen.no/nb/dep/ud/dep/utenriksminister_jonas_gahr_store/taler_artikler/2006/Svalbard—an-important-arena.html?id=420843 (accessed 31 December 2008).

The two regional institutions are those of the Barents Euro-Arctic Council (BEAC) and the Arctic Council. Both these are post-Cold War institutions that ostensibly do not deal with mainstream security issues. However, they are of importance in dealing with what could be regarded the 'soft security' questions such as environmental degradation and economic development. The Arctic Council has a complex membership, with the United Kingdom having state observer status. It deals with issues related to the Arctic environment, the indigenous peoples of the region and sustainable development, and much of the important work is done within its working groups.[42] It is in these areas that UK scientists have had an important input.[43]

BEAC also has a complicated structure and has an associated Barents Regional Council consisting of regional authorities.[44] The United Kingdom has two possibilities for involvement in BEAC, through being an observer and, more indirectly, because the European Commission is a full member of BEAC.[45] However, BEAC is not at all mentioned on the Foreign and Commonwealth Office web-site, except to remark that Norway, Finland and Iceland are members.[46] Much of the activity of BEAC, again conducted through working groups, concerns economic development and human contact across an often barren frontier.[47] In this region a major UK interest is the development of Norwegian oil and gas, balanced by environmental concerns,[48] a difficult calculation at the best of times.

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[42] Evan Bloom, 'The Establishment of the Arctic Council',1999, at http://www.state.gov/g/oes/ocns/arc/ac/index.htm (accessed 31 December 2008).

[43] Natural Environment Research Council (NERC) *NERC Polar Science Working Group Report 16 November 2007* at, http://www.nerc.ac.uk/research/areas/polar/documents/polar_science_working_group_report.pdf (accessed 31 December 2008).

[44] Barents Euro-Arctic Region *Barents Regional Council* , 2008, at http://www.beac.st/?Deptid=25231 (accessed 31 December 2008).

[45] Barents Euro-Arctic Region *Members of the Barents Euro-Arctic Council* 2008, at http://www.beac.st/?deptid=25892 (accessed 31 December 2008).

[46] Foreign and Commonwealth Office 2008a, 'Search results Barents Euro-Arctic Council' at http://www.fco.gov.uk/en/advanced-search?post (accessed 31 December 2008).

[47] Barents Euro-Arctic Region 2008c, *Barents working groups and activities* at http://www.beac.st/?Deptid=25227 (accessed 31 December 2008).

[48] Foreign and Commonwealth Office 2008b, 'British Ambassador writes in Scandinavia Oil and Gas magazine (18/08/2008). Oil And Gas: Continued Growth but Less Carbon' at http://www.fco.gov.uk/en/newsroom/latest-news/?view=News&id=5612069 (accessed 31 December 2008).

Membership of the European Union allows the UK an input to the fast-developing EU Arctic policy. Previously the Northern Dimension of the European Union had an Arctic 'window' to it, but this tended to be somewhat peripheral to a policy which itself was on the fringe of the Union's policy portfolio. During 2007-08, the EU started to develop an Arctic policy. The first steps were the involvement of the European Parliament and the mention in the joint Commission and High Representative paper on environmental security in which it was contended that climate change was leading to greater accessibility to oil and gas reserves in the Arctic and this had

> potential consequences for international stability and European security interests. The resulting new strategic interests are illustrated by the recent planting of the Russian flag under the North Pole. There is an increasing need to address the growing debate over territorial claims and access to new trade routes by different countries which challenge Europe's ability to effectively secure its trade and resource interests in the region and may put pressure on its relations with key partners.[49]

Following this up, the Commission then produced a paper on the EU and the Arctic which re-iterated the point that

> environmental changes are altering the geo-strategic dynamics of the Arctic with potential consequences for international stability and European security interests calling for the development of an EU Arctic policy.[50]

The three main policy objectives of the Commission and EU member

[49] High Representative and the European Commission *Climate Change and International Security Paper from the High Representative and the European Commission to the European Council*, at 2008, at http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/reports/99387.pdf (accessed 2 January 2009) p.8.

[50] Commission of the European Communities, the European Union and the Arctic Region. Communication from the Commission to the European Parliament and the Council. Brussels COM 763 (2008), (Brussels: Commission of the European Communities, 2008) at http://ec.europa.eu/maritimeaffairs/pdf/com08_763_en.pdf (accessed 2 January 2009) p.3.

states in the Arctic were:

– Protecting and preserving the Arctic in unison with its population
– Promoting sustainable use of resources
– Contributing to enhanced Arctic multilateral governance.

This paper represented not only a multi-agency approach by the European Union to the Arctic but one that recognized the contribution that the EU could make towards 'soft security' issues such as those associated with resources and the environment.

The United Kingdom can have its input into the debate about an EU Arctic policy through the institutions of the Union, and indeed it is notable that one of the leading lights in pushing for such a policy has been a UK MEP.[51] Many of the issues involved in the policy – such as fisheries, trade, transport and environment – are ones that have traditionally concerned the United Kingdom as a trading nation, but, as yet, there seems to be no particular response to this EU initiative. Nevertheless, in the context of an evolving EU Arctic policy, the main current UK interest, as reflected in the Foreign and Commonwealth Office's website, seems to be that of the environment.[52] In 2008 the Foreign and Commonwealth Office and the Ministry of Defence convened a meeting of UK Arctic 'stakeholders' to discuss their input into British Arctic policy and a minister from the Ministry of Defence was sent to the NATO Reykjavik meeting on the High North in January 2009. These 'green shoots' perhaps display the beginnings of a renewed official interest in the Arctic.

Traditionally, UK interests in the security of the Arctic were pursued at a multilateral level through NATO. In the Cold War, these were perceived to be very 'hard security' issues and, as seen above, concerned

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[51] Diana Wallis, 'Cross-border governance in vulnerable areas: has the EU anything to offer in the Arctic?' in O. Snellman, L. Kullerud, G. Lindström, B-W Robstad (eds.) *Proceedings of the Joint Seminar of UArctic Rectors' Forum and the Standing Committee of Parliamentarians of the Arctic Region*, (Rovaniemi: UArctic International Secretariat, 2008).

[52] Foreign and Commonwealth Office 'Search results: 26 Results meet your search: Arctic EU policy' 2009, at http://www.fco.gov.uk/en/advanced-search?post (accessed 2 January 2009).

countering the Soviet Union in the Arctic areas leading down to the North Atlantic. Since the end of the Cold War, this region has declined in traditional security importance for the UK, and so has NATO involvement. During this period, the NATO activity in the region has been primarily that of holding Arctic exercises, including those within the framework of the Partnership for Peace,[53] and also an environmental involvement. The latter has included engagement by NATO members in clearing up some of the aftermath of the Cold War in the Arctic, and NATO studies and NATO-sponsored meetings of experts in this area.[54] UK involvement in the AMEC system of dealing with military environmental issues proved to be somewhat controversial. NATO military engagement in the Arctic region, like that of the UK outlined above, has substantially declined over the past twenty years and there is no immediate reason to see a revival of either.

The brief outline of the work of the institutions through which the UK can involve itself in Arctic affairs on a multilateral basis shows that the UK would not be without forums should it wish to have a more active Arctic policy. The likelihood is that the UK's interests in the region will increase in the coming decades, mainly because of environmental and energy concerns. This could lead to a greater UK involvement in the outcome of jurisdictional disputes in the region, in which case the UK would work through the UNCLOS and bilaterally to resolve disputes in a peaceful and balanced fashion. Broader policy issues will see the UK working through the EU and through the two regional councils, especially the Arctic Council, but at a modest level. NATO may be used for defence-related environmental issues but there seems little prospect, under present conditions, of the UK contributing to an enhanced NATO presence in the region, except in the case of exercises open to NATO partners as well as members.

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[53] *NATO, Pfp Exercise Arctic-sarex 96 Khabarovsk (Far Eastern Region of Russia) 16th to 20th September 1996 Press Release 96 (124) 12 September 1996.*

[54] NATO, NATO Advanced Research Workshop on "Recycling, Remediation and Restoration Strategies for Contaminated Civilian and Military Sites in the Arctic Far North" Press Release 96 (96) 19 June 1996.

The Future

What sort of Arctic future might require a greater UK security engagement in the region? Two extreme ends of a spectrum can be imagined where the UK may be encouraged to involve itself more actively in Arctic security issues.[55]

The first future would be that of a Neo-Institutionalist dream. In this, multilateral relations develop within the institutions and disagreements are settled according to international law. Commercial operations have free access across frontiers but at the same time priority is given to environmental considerations. Both on a global scale and within the High North region, the institutions take effective action to reduce the agents of global warming while allowing for some development of hydrocarbons. In particular, CO_2 capture is developed to neutralize the environmental cost of much of the hydrocarbon extraction.[56] In all these cases, a greater EU and British involvement would be needed in the institutional means to implement good environmental governance in the Arctic region. The most likely port of call for the UK would be the EU as it developed its Arctic policy, though expert activity in the Arctic Council would also be increased, especially through NERC. NATO expertise, supported by the UK, would be utilized to help clear nuclear waste in Arctic regions.

The opposite of this is a Realist nightmare. In this case, Russia in particular would try to use its diplomatic and military muscle to gain control over a large section of the Arctic, especially attempting to bring hydrocarbon resources under its control. The international institutions – AC and BEAC – would wither away and the EU would fail to interest its member states in developing an Arctic policy. Western countries would argue about delineation issues among themselves and with Russia. Little would be done about global warming more generally and the Arctic ice sheet would continue to melt. This would allow easier access to resources

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[55] Compare the two scenarios presented by Baroness Taylor, op. cit., pp.2-3.

[56] Natural Environment Research Council *NERC's Arctic research base 2008*, at http://www.nerc.ac.uk/research/areas/polar/arcticbase.asp (accessed 2 January 2009) pp.12-13; Arctic Climate Impact Assessment, op.cit..

and encourage a modern 'gold rush', only this time by states and their favoured companies. The United Kingdom would want to oversee its northern accesses and would devote more resources to the defence of the homeland. It would look to NATO for support but would find little agreement on where to deploy forces under a NATO flag. Instead it would seek regional agreements with traditional allies such as Norway, Denmark and Canada. Getting US support would be key in the Arctic, but internal politics may push US interests in directions different from those of the north European states.

The most likely outcome is one in between the two above extremes, and this may contain elements of each. Furthermore, there is no inevitable outcome; policies have constantly to be worked on and supported, especially those building institutions and cooperative actions.

Conclusions

Should the UK have an 'Arctic policy'? At an official level there is the prospect of policy coordination through the inter-departmental Marine Science Coordination Committee, though obviously this only touches one aspect of Arctic policy. At the scientific level, NERC has taken on the task of bringing together the UK's research activities covering the Polar regions. In the security area, 'soft security' issues are covered mainly by the proposed EU Arctic policy. NATO still has a remit for 'hard security' in the region and this is of interest to the UK and allies. However, in the future 'hard security' challenges are more like to spring out of 'soft security' issues related to resources and jurisdictional questions. The least that the UK can do is to make sure that it is not surprised by such issues and their complexity; the best is that policy-makers should take an active role in the development of EU policy and in the Arctic-related institutions.

In all this, the UK has certain natural allies such as the Nordic states and the US. It should also recognize that it has interests in common with Russia and states such as Japan. However, the Arctic contains a number of traps – tangles over jurisdiction, the treatment of indigenous peoples, concern for the environment versus resource exploitation – that need

to be treated with some care. The first step is for the UK government to continue to support a high level of knowledge about these issues. The second is to exchange such knowledge and discuss common interests with like-minded countries. NATO can provide one valuable forum for such interaction. The NATO meeting in Reykjavik provided a start in that process, at least for NATO countries. This forum should now be extended to include non-NATO states with an interest in the Arctic region.

HIGH NORTH ENERGY: MYTHS AND REALITIES

Kristine Offerdal*

Introduction

This paper asks what role offshore Arctic areas[1] might play as an oil and gas region in a changing global energy picture, and identifies political and commercial approaches to the region from an energy perspective. One argument is that there is a discrepancy between political rhetoric and public debate on the one side and commercial evaluations of the viability of the Arctic as an energy region on the other. Conditions for commercial interest in the region are discussed, and it is also questioned whether the Arctic as such should be treated as one energy region, or whether it makes more sense to talk about various prospective subregions of the Arctic.

The article first gives a short introduction to the concept of energy security in light of recent global energy developments. The most important features of today's energy picture are identified. Major elements of recent political initiatives in key countries are then presented, with an emphasis on what future role, in view of the political interest, the offshore Arctic might play as an oil and gas region. Industry interest is a necessary condition for development of Arctic resources. In the second section of the paper, therefore, the main question is how international oil companies assess offshore Arctic areas. Thus, the paper seeks to contribute to an understanding of some of the conditions that affect development in the region.

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[1] The Arctic in this paper means the offshore areas north of the polar circle.

A comparison of governmental and industrial perspectives of the offshore Arctic as an oil and gas region will help us determine whether the Arctic states' assumptions on which they develop their Arctic policies are correct in terms of what we can expect from industrial development.

The questions outlined above are therefore aimed at serving as a reality check with reference to the current political debate about the Arctic as an oil and gas region. What are the prospects of the offshore Arctic contributing to energy security in a short, medium and long term perspective, and what implications do the answers to this question have for political development in the region? The third section will discuss possible political challenges resulting from potential development of the Arctic energy resources. Thus – assuming that economic activities linked to energy developments in the region will accelerate, what potential threats to energy security are likely to be most prevalent in an Arctic context? Finally, the paper discusses what measures could be taken by Arctic states to deal with such challenges and potential threats.

Background

Reliable oil and gas deliveries are vital for energy-hungry industrialized societies. The past years have seen increasing unease about the security of energy supply in most importing states. Global demand is rising and production in OECD countries is declining. Importing countries are left feeling vulnerable as they depend on countries with increasingly unpredictable policies for energy exploration, production and transportation. In combination with continued instability in energy producing regions, these developments contributed to a considerable increase in the price of oil between 2004 and 2008. Another side-effect has been an increased international focus on the possible role of the Arctic as a contributor to global energy security.

Russia, Norway and the United States have had their eyes on the Arctic energy riches for several years, whereas the EU has only more recently started to pay broad attention to this remote energy region. An important observation, however, is that whereas the political focus in

Norway and Russia has naturally been on the European Arctic (the Norwegian, Barents and Kara Seas) and the US has focused on Arctic Alaska, they have more recently started to address Arctic energy development in a circumpolar context. At a later point the paper will discuss the question of whether this circumpolar focus makes sense from an energy perspective.

Between 2004 and 2008 the oil price rose to a level that few had foreseen.[2] Perceptions of little excess capacity and continued instability in the Middle East along with increased focus on terror threats were among major factors that contributed to an uneasy market. At the same time, researchers started reporting a dramatic decrease in the extent of the Arctic ice cap, leaving possibly energy rich offshore areas more accessible for exploration and production. In combination with unsettled border issues and a more self-assertive Russia, various actors started to see new challenges and opportunities in the region. Oil and gas were major elements in both respects. Thus, today, the Arctic is not only valued for its strategic utility, as it was during the cold war, but is viewed as a prize in itself,[3] with the oil and gas resources as key contributors to this change in perceptions.[4]

Energy developments and energy security

The paper rests on the assumption that the energy security challenges of today are not primarily due to geological factors. It is widely accepted among energy analysts that there is enough oil and gas in the world to satisfy current demand. In fact, global output has increased by 60 per cent since the 1970s, "the last time the world was supposedly running

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[2] In 2004 North Sea Brent crude cost between $30 and $40 per barrel. In January 2007 the price was just above $50, after having decreased from more than $75 in summer 2006, before it dramatically increased to a near record-high level of more than $145 in July 2008.

[3] N. Mychajlyszyn, "The Arctic: Geopolitical issues", Library of Parliament, InfoSeries PRB 08-06E, 24 October 2008, p.1. URL: http://www.parl.gc.ca/information/library/PRBpubs/prb0806-e.htm (accessed 14 January 2009).

[4] It is worth noting that the region also contains vast amounts of other resources, such as coal, nickel, copper, tungsten, lead, zinc, gold, silver, diamonds, manganese, chromium and titanium. See ECON, "Arctic Shipping 2030: From Russia with Oil, Stormy Passage, or Arctic Great Game?" Report 2007-070, 2007, p. 4.

out of oil",[5] and proven reserves worldwide have almost doubled since 1980.[6] It is also a widely accepted notion that the immediate risk to supply is due to lack of investment. According to IEA most capital today goes to exploration and development of high-cost reserves, partly because of lack of international oil company access to the cheapest resources.[7] These are mostly accessible to national oil companies that tend to be unwilling to invest as much in new capacity as international companies.

Hence, one energy security challenge is that the resources are not evenly distributed between the states. Another challenge is that the rate of decline in production at large, mature fields that have made up the foundation of global output for several decades is relatively fast,[8] and that limited exploration activity raises uncertainties linked to finding new fields. Yet another dilemma is that trust between producing and importing states is under pressure, with many importing countries feeling more vulnerable because of high dependence on exporting countries that seem increasingly inclined to use energy as a political tool.[9] Nationalization in major producing countries leaves international oil companies with fewer opportunities and perhaps more inclined to test out new producing regions where resources might immediately be less accessible.

During the second half of 2008 the oil price decreased as dramatically as it had increased in the years before.[10] Among the reasons were the fact that the market started paying increased attention to the above-mentioned trends, along with economic recession and excess capacity in the market. The price of oil is extremely difficult to foresee. According to IEA,

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[5] D. Yergin, "Ensuring Energy Security" *Foreign Affairs*, March/April 2006, p. 74.
[6] IEA, *World Energy Outlook 2008*, Paris: International Energy Agency, p. 202.
[7] D. Yergin, op cit., p. 37.
[8] IEA op cit., p. 51.
[9] One example is Russia, which over the past few years has moved from being seen as part of the solution to the energy security challenge to part of the problem. An increasingly unstable investment environment, increased nationalization and specifically the gas disputes with Ukraine in January 2006 and 2009 are all developments that have contributed to this change in perceptions of Russia as an energy provider.
[10] In about six months, from 1 July to 31 December 2008, the price of North Sea Brent decreased from above $145 to less than $40 per barrel.

prices are likely to remain highly volatile, especially over the next couple of years.[11] If the current financial crisis persists or is worsened, oil prices are expected to experience a downward pressure. However, in its 2008 world Energy Outlook, IEA projected an average price of $100 per barrel up to 2015, rising to over $120 in 2030, with increased marginal costs of supply exerting upward pressure on prices through to 2030.[12]

Since Winston Churchill first argued that "safety and certainty in oil lie in variety and variety alone", diversification has been seen as the key to energy security. However, a wider definition is required that takes into account "the rapid evolution of the global energy trade, supply-chain vulnerabilities, terrorism and integration of major new economies into the world market".[13] A commonly used definition of energy security in importing countries is availability of sufficient supplies at affordable prices. For exporting countries security of demand represents the central aspect of the concept. It is mainly as a contributor to diversification that the Arctic is discussed in this paper. In the long term, technological and geographical diversification of suppliers is the best hedge against supply risks. Development of new energy regions is a necessary part of such diversification.

Expanding production in lower-cost regions will be central to meeting the world's needs at reasonable costs, but it might also be the case that the era of cheap oil is over, and that new higher cost energy regions might be part of the solution to meeting the world's surging energy needs. The next sections discuss whether the Arctic is a region that is becoming more relevant as a result of the energy developments described, first from a political and then from a commercial point of view.

The Arctic as an energy region – political perspectives

The new focus on the Arctic is primarily due to its offshore potential and possible new opportunities following from climate change and

[11] *World Energy Outlook 2008*, Paris: International Energy Agency, p. 40.
[12] Ibid., p. 40.
[13] D. Yergin, op cit., p. 70.

less sea ice. In 2000, United States Geological Surveys (USGS) made a worldwide oil and gas assessment in which some Arctic areas were included. From the numbers USGS reported, many news reporters and public officials alike concluded that the Arctic could contain as much as 25 per cent of the world's undiscovered recoverable oil and gas resources, and this number played into the motivation of Arctic states' new focus on the region.

Norway

In 2005, the Norwegian Government declared the High North a strategic priority.[14] The High North is the Norwegian term for the Arctic areas adjacent to Norway.[15] Norway has for several years debated the importance of these areas for the country's position on the international (energy) arena. With a maturing North Sea, to many the Norwegian and Barents Seas represent the future on the Norwegian continental shelf (NCS). The Ministry of Foreign Affairs has used this actively in its High North diplomacy,[16] in many respects equalling the High North to the circumpolar Arctic, arguing that "the High North is emerging as a new petroleum province, and as much as a quarter of the world's undiscovered oil and gas resources may be located in Arctic areas" and moreover that "more than two thirds of the undiscovered resources on the Norwegian continental shelf are located in the Norwegian Sea and the Barents Sea".[17] Although they too emphasize the great potential in the High North, the Ministry of Petroleum and Energy (MPE) are more sober in their state-

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[14] Norwegian Government, "Plattform for regjeringssamarbeidet mellom Arbeiderpartiet, Sosialistisk Venstreparti og Senterpartiet 2005-2009". URL: http://www.regjeringen.no/upload/kilde/smk/rap/2005/0001/ddd/pdfv/260512-regjeringsplatform.pdf (accessed 22 December 2009).

[15] See for example J.G. Støre, "The High North – top of the world – top of the agenda", speech at the Center for Strategic and International Studies, Washington D.C., 15 June 2006, URL: http://www.regjeringen.no/nn/dep/ud/Om-departementet/Utenriksminister-Jonas-Gahr-Store/Taler-og-artiklar/2006/The-High-North—-top-of-the-world—-top-of-the-agenda.html?id=420855 (accessed 22 December 2008).

[16] For more information about this and High North diplomacy, see K. Offerdal, "The European Arctic in US foreign energy policy: the case of the Norwegian high north" *Polar Record*, 2009, vol. 45, issue 1, pp. 59-71.

[17] Norwegian Ministry of Foreign Affairs, *The Norwegian Government's High North strategy*, Oslo: Ministry of Foreign Affairs, 2006, pp. 13-14.

ments, noting that the region is "by far the least explored part of the NCS".[18] That said, the general perception in Norwegian circles, media included, is that the High North represents new opportunities for Norway as oil and gas nation as production in more southern regions is in decline.[19] It is worth noting, however, that up until very recently the focus has been on the High North, and thus on the European Arctic as opposed to the circumpolar Arctic.

Russia

Russia is another Arctic nation that has had its eyes on offshore energy resources in European areas of the Arctic for several years already, with exploration activities in the early 1980s revealing several promising structures.[20] Russian authorities have on several occasions revealed plans for development of the Russian Arctic continental shelf. In 2006 the Russian Minister of Natural Resources, Yuri Trutnev, stated that six licensing rounds would be carried out in the Barents Sea by 2010.[21] On 17 September 2008 the Russian National Security Council adopted a policy program for the Arctic up to the year 2020. This report has not yet been made publicly available, but political statements indicate that a major point in the report is to use the Arctic areas as a strategic resource base to support the country's social and economic development. In

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[18] O.R. Enoksen, "Oil and gas offshore developments in Arctic and cold regions", speech at the INTSOK seminar in Moscow 25 January 2006.
http://www.regjeringen.no/nb/dep/oed/aktuelt/taler_artikler/minister/tidligere_olje_og_energiminister_enoksen/2006/Oil-and-gas-offshore-developments-in-arc.html?id=420747 (accessed 22 December 2008).

[19] Petroleum production on the Norwegian Continental Shelf peaked in 2004 at 264 million standard cubic meters (sm3) of oil equivalents, with total production in 2007 at 238 million sm3; see Norwegian Petroleum Directorate, *Fakta. Norsk petroleumsverksemd* 2008, p. 207, table 1.2. That said, whereas the total amount of oil production is expected to continue to decline, gas production is projected to increase.

[20] A. Moe and L. Rowe, "Petroleum Activity in the Russian Barents Sea. Constraints and Options for Norwegian Offshore and Shipping Companies", FNI Report 7/2008, p.1. It is also worth noting that in 2001 the country submitted its Arctic continental shelf claims, extending to the North Pole, to the United Nations. Norway followed in 2006. Although the US responded to the Russian claims and Russia and Spain responded to the Norwegian claims, both events went largely unnoticed internationally. See O. Young, "Whither the Arctic? Conflict or cooperation in the circumpolar north", *Polar Record*, Vol. 45, issue 1, pp. 73-82. See Commission on the Limits of the Continental Shelf 2008a and 2008b for the submissions and their reactions.

[21] Ibid., p. 8.

October 2008 the Secretary of the Russian Security Council, Nikolay Patrushev, stated that the Arctic is a strategically important region, and that Russia needs to secure protection of its national interests on the continental shelf.[22] Speaking to the Security Council, President Medvedev stated that the use of the Arctic energy resources is "a safeguard for Russia's energy security".[23]

In its "Concept for long-term socioeconomic development of the Russian Federation", active development of energy resources on the Arctic shelf is one priority, and Russia aims to develop 3 billion tons of oil and up to 5 trillion cubic meters of gas until the year 2020. In sum, it is evident that Russia has big plans for development of its Arctic resources. Whether these plans will be implemented, however, remains to be seen. Russia has also traditionally had a sub-regional approach to the Arctic energy resources, although the country has recently also engaged in the wider Arctic debate on energy.

The United States

In the United States, the debate about Arctic energy development has mainly been centred on Arctic Alaska, including the discussion of whether to open up the Arctic National Wildlife Refuge (ANWR) for exploration drilling. The Arctic as an energy region in a circumpolar sense has up until recently been more or less absent from US political debate. As late as September 2007, for example, President George W. Bush gave a speech on "Energy security and climate change" without a single mention of the Arctic.[24] An update of the 1994 Presidential Directive on the Arctic, which was recently released, is the most specific expression of the recent heightened US political interest in the region in a circumpolar sense.

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[22] Rosbaltnord.ru, "Patrushev: My prevratim Arktiku v resursnuiu bazu XXI veka" ("Patrushev: We convert the Arctic into the resource base of the 21st century"). 2 October 2008. URL: http://www.rosbaltnord.ru/2008/10/02/528953.html (accessed 6 October 2008).

[23] Oilweek, "Medvedev says Arctic resources crucial for Russia's economic future". 17 September 2008. URL: http://www.oilweek.com/news.asp?ID=18679 (accessed 23 December 2008).

[24] The White House, "Selected speeches of President George W. Bush 2001-2008", URL: http://www.whitehouse.gov/infocus/bushrecord/documents/Selected_Speeches_George_W_Bush.pdf (accessed 19 January 2009).

Russian assertiveness, climate change and new opportunities linked to oil and gas developments are among the main drivers behind the new policy. The document notes that "energy development in the Arctic region will play an important role in meeting growing global energy demand as the area is thought to contain a substantial portion of the world's undiscovered energy resources".[25] This indicates that US perceptions of the resource potential in the circumpolar Arctic and of the prospects for development are in line with Russian and Norwegian readings.

The European Union

The European Union, on the other hand, has only recently started to pay attention to the Arctic. In Europe also, Russian policy has been among the key drivers, but climate change and the energy potential play into the overall interest.[26] In November 2008, the European Commission presented its Arctic communication.[27] In the document, environmental and climate challenges are given major priority, but mention is also made of the huge energy potential and a proposal to facilitate "the sustainable and environmentally friendly exploration, extraction and transportation of Arctic hydrocarbon resources".[28] However, in its second strategic energy review from the same year, there are no references to Arctic energy resources, questioning the importance that energy experts within the EU attach to the region.[29]

Thus, foreign ministries in some countries tend to overestimate the resource potential, whereas energy experts are more sober in their analyses, opening up the possibility that the Arctic resources are not as attractive at

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[25] The White House, "National Security Presidential Directive and Homeland Security Presidential Directive. 9 January. Subject: Arctic Region Policy", 2009, §G.1. URL: http://www.whitehouse.gov/news/releases/2009/01/20090112-3.html (accessed 14 January 2009).

[26] K. Offerdal, "Arctic Energy in EU Policy. Arbitrary Interest in the Norwegian High North", forthcoming 2009.

[27] Commission of the European Communities, "The European Union and the Arctic Region" Communication from the Commission to the European Parliament and the Council, 2008. COM(2008) 763.

[28] Ibid., p. 7.

[29] Commission of the European Communities, "Second Strategic Energy Review. An EU Energy Security and Solidarity Action Plan", 2008, {SEC(2008) 2794} {SEC(2008) 2795}.

this point as many "generalists" seem to think.[30] In fact, USGS representatives never argued that 25 per cent of the world's undiscovered recoverable oil and gas resources might be located in the Arctic. The assessment report broadly described seven oil and gas basins that contained substantial tracts of land that were not within the Arctic. As USGS representative Brenda Pierce has noted, one of the basins, the East Siberian, lies entirely south of the Arctic Circle.[31] If we exclude this region, we are left with 14 per cent. However, this number might be too low, since large parts of the Arctic were not included in the assessment. According to Pierce, the"Arctic was the big hole that we didn't do in the worldwide assessment".[32] Thus, the estimates made at that time were highly uncertain and did not say anything exact about the resource potential in the Arctic. Nevertheless, this number, which was adjusted to 22 per cent in 2008[33] in a considerably more thorough assessment, but still with major uncertainties, has widely been accepted as proof that the Arctic is the new major energy frontier. Various actors have also used USGS numbers to support the argument that it was more pressing than ever for Arctic coastal states to settle their border issues so that these vast resources could be extracted. It was even argued that the mere fact that the region contained such vast amounts of oil and gas made it likely that Arctic coastal states could end up in a new cold war and a "mad dash for resources"[34] in securing their shares of the Arctic.[35]

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[30] For an analysis of the differences between the Norwegian Ministry of Foreign Affairs (MFA) and the Ministry of Petroleum and Energy (MPE) in this regard, see for example K. Offerdal, "Det norske nordområdeinitiativet og USA: Utenriks- eller energipolitikk?" ("Norway's High North Initiative and US: Foreign policy or energy policy?"), *Internasjonal Politikk,* 2008, Vol. 66, issue 2-3, pp. 349-372.

[31] *Petroleum News*, "USGS: 25% Arctic oil, gas estimate a reporter's mistake", Vol. 12, No. 42. Week of 21 October 2007.

[32] Ibid.

[33] USGS, "Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle", USGS Fact Sheet 2008-3049.

[34] See S. Borgerson, "Arctic Meltdown. The Economic and Security Implications of Global Warming". *Foreign Affairs,* 2008.

[35] In response to the planting of the Russian flag on the seabed under the North Pole, a spokesman for Canadian Prime Minster Stephen Harper stated explicitly that "Our government has an aggressive Arctic agenda", fuelling the impression that the region was set to be the arena for a fight for territories among the Arctic states. US authorities have also stated that they do not intend to stand by passively while other states share the resources in the Arctic among themselves. See R. L. Larsson,"Arktis och energifrågorna" in Granholm, n. (ed.9) *Arktis – strategiska frågor i en region i förandring*. FOI Report 2469-SE, 2008, p. 25.

Finally, this section argues that, traditionally, Arctic coastal states have had their eyes on the energy riches within their respective sub-regions of the Arctic, and that the Arctic as a circumpolar energy region has only recently been included in political rhetoric, to a large extent on the basis of partly incorrect interpretations of highly uncertain USGS estimates. The next section addresses the industry's approach to the region.

The Arctic as an energy region – an industry perspective

In order to develop energy regions, huge investments from the oil and gas industry are needed. Accordingly, a central question is whether the Arctic is a competitive alternative, given current knowledge about resource potential, extraction and transportation costs and risks.[36] This section first presents the reader with an overview of current activity in the region, and then describes recent developments in the industry's interest in the region. After this, factors that might affect this interest are looked at in more detail. Important questions here, the answers to which serve as indicators of the commerciality of Arctic resources, are whether the prospects of huge findings are good enough, and whether challenges and costs associated with exploration, extraction and transport are few enough and small enough. The section ends with an assessment of future industry interest in the region and thus prospects for future development based on the foregoing discussion.

Current activity

It is worth noting that onshore energy exploration and development in the Arctic have been going on for several decades already. Today the Arctic produces about a tenth of the world's oil and a quarter of its gas,[37] almost all of it onshore. Extraction in offshore areas of the Arctic is currently very limited. The Norwegian company, StatoilHydro, operates the only offshore gas field in the European Arctic in production, the

[36] In order to diversify its energy imports, the political level might seek to affect industry interest, for instance by guaranteeing a certain price for oil and gas from the region (or other measures). The paper will not discuss this dimension, but will focus on how industry assesses the prospects for doing business in the region irrespectively of possible governmental initiatives to make the companies more interested.

[37] AMAP, *Arctic Oil and Gas 2007*. Oslo: Arctic Monitoring and Assessment Programme, 2008.

Snøhvit Field. The Norwegian Barents Sea has been on StatoilHydro's radar screen for decades, and the Snøhvit Field was discovered in 1984. However, political framework conditions, technology and oil prices made start-up viable only in the new millennium. Production started in autumn 2007.[38] The first offshore oil field to produce in the European Arctic will probably be the Prirazlomnoye field in the Russian Pechora Sea. This has been postponed several times, raising strong doubts about its current projected start-up in 2010.

BP has been engaged onshore and offshore in the North American Arctic for several years. Its Endicott oil field in shallow water a few kilometres off the coast of Prudhoe Bay came on stream in 1987, connected to land by a permanent causeway. The Northstar oil field is located further offshore, developed from an island constructed in about 39 feet of water. The field began production in 2001. A 10-kilometer long pipeline buried below the seabed transports the oil to shore and further to the Trans-Alaska Pipeline. Among other companies that are active in the Arctic, ConocoPhillips has significant onshore exploration in Alaska, Canada and Russia. Royal Dutch Shell has made seismic surveys in both the Beaufort and Chukchi Seas, and last but not least, Gazprom and Rosneft have had considerable onshore production in Western Siberia over the past decades.

Industry interest

The fact that current activity is mostly onshore suggests that up until recently the industry has not shown much interest in the offshore Arctic. There were several leasing plans for the Beaufort Sea and the Chukchi Sea in the early and mid 2000s, but they were cancelled because of low interest.[39] Offshore lease sales in 2007 and 2008, however, indicated a renewed company interest in the region.

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[38] In the early 1990s Statoil started a planning process for exploitation of the field. However, the work was temporarily terminated because of cost and marketing concerns. A less costly solution had to be developed. In 1997, a new planning process was initiated, based on a new technological solution with installations on the sea bottom and a land-based facility at Melkøya outside the town of Hammerfest, see http://www.snohvit.com/.

[39] T. Koivuroava and K. Hossain, "Offshore Hydrocarbon: Current Policy Context in the Marine Arctic", background paper, Arctic Transform project, 4 September 2008.

In February 2008 StatoilHydro bid for blocks in offshore Alaska, further extending their reach into the Arctic. On 14 out of 16 blocks the company bid together with Italian ENI Petroleum, with StatoilHydro as operator. Company representatives have noted that StatoilHydro sees the Chukchi Sea as "an Arctic area with already proven hydrocarbons, in an open transparent bid round in a politically and fiscally stable regime".[40] ConocoPhillips also showed great interest in the Chukchi Sea lease sale in February 2008, submitting 98 high bids adding up to $506 million, and has also bid for blocks in the Norwegian part of the Barents Sea. ENI has also shown interest in the Norwegian Barents Sea and in Arctic Russia, particularly onshore in regard to the latter.

In 2005, Royal Dutch Shell re-entered Alaska by participating in the federal Outer Continental Shelf Lease Sale 195 and was awarded 84 leases in the Beaufort Sea. Shell's chief executive for exploration and production has said with regard to the Arctic that he believes that the (at that time) 25 per cent estimate "may be optimistic" but that "if it's half right then it's worth exploring. It has the right ingredients to be a good energy play, and the world needs some new energy plays".[41]

BP has shown great interest in the Russian onshore Arctic, but so far not for example in the Barents Sea. However, indications are that BP also sees a potential future role in the offshore Arctic. In a conference speech in 2007, for instance, a BP representative told the audience that greater oil and gas discovery in the future will come from extending the geography, "especially into the Arctic and into ever deeper water".[42]

Russian oil and gas companies in official statements give high priority to Arctic development, with the Arctic as a main factor in the market-

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[40] *Petroleum News*, "Chukchi Sea 'next step'. Norway's StatoilHydro teams with Italy's ENI in Alaska OCS lease sale", 2008, Vol. 13, No. 6. URL: http://www.petroleumnews.com/pntruncate/969967007.shtml (accessed 3 January 2009). Representatives of StatoilHydro have also expressed their interest in the currently closed offshore areas outside the Lofoten islands, in the Norwegian Sea.

[41] *Times Online*, "Huge Shell drilling programme heralds scramble for the Arctic", 6 July 2007.

[42] T. Meggs, "The third trillion – where are the resources and how will we obtain them?" Speech at SPE's Research and Development Conference, 26 April 2007.

ing of Gazprom.[43] Gazprom sees increased offshore activity as a key element to respond to the challenge of maintaining supply beyond 2010.[44] However, analysts have noted that many of Gazprom's statements are visionary and hardly realizable in the short to medium term.[45] Moreover, in Rosneft's growth strategy and Production and Development plan, there is no mention of northern offshore areas, except with reference to Sakhalin.[46]

The case of the Norwegian Arctic might also serve as an indication of increased industry interest in parts of the offshore Arctic. In the 19th licensing round on the NCS in 2004, 24 companies applied for blocks in the Norwegian and Barents Seas, whereas the number had almost doubled to 46 in the 20th round in 2008. ExxonMobil, for example, previously entirely uninterested in the Norwegian High North, applied for a block in this round, indicating that, under the circumstances at the time, offshore Arctic areas were still competitive in a global perspective. That said, industry representatives keep repeating that this round is decisive for future interest. Exploration drilling has been going on for many years with few promising discoveries, and if little is found this time around too, companies might lose interest. Companies might also lose interest if bigger findings are made further south and for the foreseeable future concentrate on the southern regions instead. In comparison to southern parts of the NCS, the High North is still a frontier area that the industry is only now beginning to think about looking into. To illustrate this, total exploration investments on the NCS for 2009 are estimated at 31.4 billion Norwegian kroner (NOK), and only 2.3 billion will be invested in the Barents Sea.

The next section comments on some major factors that oil companies analyze while assessing the feasibility of the region: the resource potential, political framework conditions, technological challenges and, ultimately, development costs and risks.

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[43] Larsson, op cit., p. 18.
[44] Ibid., p. 9.
[45] See for example ibid., p. 22 and A. Moe and E. Wilson Rowe, "Northern Offshore Oil and Gas Resources: Russian Policy Challenges and Approaches". FNI/NUPI Working paper, 2008.
[46] Moe and Wilson Rowe, op cit., p. 8.

Resource potential

Russia holds by far the largest resources in the Arctic, both onshore in the Komi, Yamal-Nenets and Khanty-Mansiysk, Timan-Pechora and Western Siberia areas, and offshore in the Pechora, Kara and Barents Seas. Other potentially oil and gas rich areas include Alaska's North Slope, Norwegian parts of the Barents Sea, the Norwegian Sea, offshore Greenland, the Canadian High Arctic and the Beaufort Sea.

As already mentioned, USGS's Arctic oil and gas assessment from 2008, although it operates with very uncertain numbers, gives a more accurate picture of what is to be expected in the Arctic than the 2000 worldwide assessment. The resource estimates are still considerable – about 22 per cent of the world's undiscovered recoverable oil and gas resources.[47] Even though USGS has now made an assessment of the oil and gas resources of the entire Arctic region, one of the biggest challenges for the assessment team was lack of data. For some of the assessed areas there were almost no data at all. Accordingly, USGS has continuously stressed the uncertainties associated with the study. Finally, the study does not say anything about what oil and gas resources will actually be extracted, but it gives an overview of the potential.[48]

Thus, the offshore Arctic is a frontier area. Again, we could use the Norwegian continental shelf as an example. Although the North Sea is a maturing energy region, the northern parts of the NCS have so far not shown the same potential as the south. In light of estimates, undiscovered resources on the Norwegian shelf are located in the North, Norwegian and Barents seas, each holding about a third. Total remaining resources, including reserves in the three areas, are estimated at about 8.3 billion standard cubic meters of oil equivalents (Sm3 o.e.). These 8.3 billion cubic meters are divided among the North Sea (4.3 billion), the Norwegian Sea

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[47] More specifically, 90 million barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids. Approximately 84 per cent of this is expected to occur in offshore areas. See USGS op cit..

[48] Norwegian Petroleum Directorate, "Usikkerhet i Arktis". 24 August 2008. URL: http://www.npd.no/Norsk/Aktuelt/Nyheter/2008_NS_2_Usikkerhet+i+Arktis.htm?print=true (accessed 3 January 2009).

(2.7 billion) and the Barents Sea (1.3 billion Sm3 o.e.), thus leaving the North Sea bigger than the Norwegian and Barents Seas combined, with the Barents Sea as by far the smallest.[49]

Lastly, what should also be noticed is that the resources in the Arctic are not evenly distributed between the sub-regions of the Arctic. For example, USGS estimates that about 70 per cent of the Arctic resources are gas that is located in Western Siberia and the Eastern Barents Sea.[50] Accordingly, companies in general tend to treat the Arctic not as one region, but as various prospective sub-regions, as evident from the section on industry interest in different parts of the Arctic. This has bearings on the region's potential contribution to energy security and will be commented upon later.

Political framework and investment conditions

The Arctic is often described as a politically stable region, which is of course true and very important from an energy security perspective. However, regional political stability does not necessarily imply a stable and uniform investment framework. Investing in Russia is for example a very different exercise from investing in Canada, Norway or the United States. Russia's renationalization of its energy sector with foreign companies that are not allowed stakes in offshore fields, along with widespread corruption, leads to quite a different assessment of risks for companies than for example on the Norwegian Continental Shelf. In Norway, taxes and development expenses are high and the chances of huge findings smaller, yet the investment framework is more predictable.

Framework conditions for offshore development in Russia have generally become more favourable over the past years, but one factor overshadows this, namely the new legislation on foreign investment in strate-

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[49] Norwegian Petroleum Directorate, *Fakta. Norsk petroleumsverksemd 2007*.p. 80, and table 10.1 p. 82.
[50] Most of the oil is expected to be located in Arctic Alaska and Eastern Greenland, but according to Wood McKenzie and Fugro Robertson, in lesser quantities than previously assumed. See *Offshore-technology.com*, "Race to the Arctic". 01 April 2008. URL: http://www.offshore-technology.com/features/feature1800/ (accessed 3 January 2009).

gic sectors that was adopted in April 2008. According to this, state companies will have exclusive rights to the Russian continental shelf. This does not hinder joint projects with foreign companies as long as the license remains with the Russian company,[51] but it means that future activity on the Russian shelf has to take into account the interests and strategies of Gazprom and Rosneft, whose determination in the Arctic is questioned by many.[52] In any case, as Moe and Rowe note, the new investment legislation has reduced the need to push forward offshore projects to ward off competitors, thus possibly slowing down developments in this subregion.[53] As already mentioned, current official timelines seem unrealistic, leaving foreign oil companies with the impression of uncertainty about the pace of future developments on the Russian Arctic shelf, possibly affecting interest and investments – and, in the final instance, the region's potential to contribute to energy security.

Another political factor which will have an impact on industry interest is whether prospective areas remain closed for exploration activity or whether governments also open up for activity in areas such as those outside the Lofoten islands on the Norwegian continental shelf, or the Arctic National Wildlife Refuge in Alaska. The oil and gas industry has already expressed considerable interest in the Lofoten area, indicating that an opening up of the region would probably attract more companies to the Norwegian High North. However, we should not assume that the industry will not be interested in certain parts of the Arctic, even in a scenario where the above-mentioned areas remain unopened.

Technological challenges

Arctic offshore development also presents oil and gas companies with major technological challenges. For example, development in areas such as Canada and Greenland will be technology driven. Most of the unexplored resources are located under the ice, and the gas resources on

[51] Moe and Rowe op cit., p. 9.
[52] See for example Moe and Wilson Rowe, op cit.
[53] Ibid., p. 10.

Greenland's shelf are not currently economically viable.[54] A highly vulnerable and harsh environment, lack of infrastructure and long distances, in parts of the Arctic on stunning sea depths, are challenges that it might take the industry some time to overcome.

The Arctic environment is considered to be highly vulnerable. Noise and possible spills from oil and gas related activities threaten to disturb the region's birds, fish and mammals. Oil companies have to relate to an ever more influential environmentalist lobby which strongly opposes development in large parts of the region. With increasing public attention to the Arctic and a highly vulnerable environment, environmental and climate considerations are perhaps more vital than ever for the industry to address. Oil and gas activities also threaten to affect local and traditional ways of life, including hunting, fishing and herding, placing high responsibilities on the industry as to development of new, cleaner and safer technologies.

Moreover, the melting polar ice cap represents much of the background to the current debate about the Arctic as an energy region. However, it is only partly true that the thawing ice is making Arctic resources more accessible. A melting ice cap involves risks of icebergs and, not least, harsher and more unstable weather. As the ice cap melts, the probability of polar storms, which are extremely powerful and difficult to forecast even with today's weather technology, increases dramatically. Thus, as some hurdles are removed, others are added to the industry's list of factors to take into consideration when assessing the Arctic.

Yet another complicating factor from an industry point of view is that the Arctic is a frontier area. This has implications for drilling, extraction and transportation. All of these processes are extremely challenging and expensive in a remote region with little or no infrastructure. The remoteness and lack of infrastructure in the region also present major challenges to companies with regard to the task of getting the resources to mar-

[54] ECON, op cit., p. 13.

kets. Because of long distances, Liquid Natural Gas (LNG) might be the most suitable solution for transport of the larger part of the Arctic resources to markets. Nevertheless, the gas has to be transported to onshore liquefaction plants, meaning that LNG does not solve all challenges connected with the long distances.

Moreover, transport by ship requires ice-strengthened hulls, or icebreaker services to accompany the ships.[55] Thus, the supply industry also faces great challenges in the Arctic. Rigs and equipment adjusted to harsh Arctic environmental conditions are costly and take time to develop. Icebreaking capacities, for example, are not a common feature today. Also, fields that are located far offshore are extremely difficult to develop for a number of reasons. What is the solution when a field for example is located beyond the reach of helicopters, such as the Shtokman field?

The offshore Arctic – a high cost region

All these challenges add to a cost intensive Arctic environment and play into the industry's relatively muted interest in most parts of the region up until recently. Estimates of production and exploration costs in the Arctic vary widely, but are substantially higher than in more established, southern energy regions. According to IEA,[56] the cost of exploiting Arctic resources (offshore and onshore) in 2008 amounted to about $40 to $100 per barrel. This is slightly lower than production cost estimates for oil shales ($50 to $110), whereas other unconventional resources such as oil sands could be produced at costs ranging from about $40 to $80 per barrel.[57] These estimates are all substantially higher than estimated production costs in the Middle East and North Africa, which range from less than $10 to about $40 a barrel.[58]

Moreover, with high extraction costs due to remoteness, lack of

[55] ECON op cit., p. 7.
[56] IEA, Op cit., p. 218
[57] These unconventional resources will face political and regulatory obstacles, such as CO_2 emission-reduction incentives higher than those for conventional oil, as they leave large environmental footprints as a result of the greenhouse gases emitted when produced and used. See IEA op cit., p. 219.
[58] Ibid., p. 218-219

infrastructure and technological challenges, development of offshore Arctic fields is often considered at least 50 per cent more expensive than fields onshore. Ludmila Kalist, from the Federal Institute of Oil and Geology in Russia, noted in November 2008 that only one per cent of Russia's hydrocarbons on the Arctic shelf could be profitably extracted, given the oil and gas prices at the time,[59] and that the price needs to climb to at least $100 a barrel in order for offshore investment to become lucrative. Analysts are now questioning the feasibility of the Shtokman project, with good reason. In December 2008, Shtokman development company leader Yuri Komarov stated that oil prices of a minimum of 50-60 USD per barrel are necessary for the Shtokman project's wellbeing.[60]

Consequently, the somewhat increased industry interest in the offshore Arctic and the return of super-majors such as Shell to Alaska's Arctic waters, for example, have been possible because of record-high oil prices and new technologies. The question is whether the area would still be interesting should oil prices stabilize at the current level (in January to March 2009 between $40 and $50). The discussion above indicates that it is not. At current oil prices, costs and risks are likely to surpass potential awards in large parts of the region. The persistent high oil price up until autumn 2008 was thus a necessary condition for the increased industry interest.

Of course, this does not mean that the region will not be developed in a long term perspective. However, companies are constantly assessing costs and risks in the region. In the 2006 report "Future of the Arctic – a New Dawn for Exploration" Wood McKenzie and Fugro Robertson consultants identified three possible approaches for companies seeking opportunities in the Arctic. They called the first of these "Major resource capture", which means "gaining access to high volumes through licensing

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[59] *Barentsobserver*, "Arctic oil production not profitable". 18 November 2008. URL: http://www.barentsobserver.com/arctic-oil-production-not-profitable.4527025-16178.html (accessed 3 January 2009). On 20 November 2008 the price of oil was less than $50 a barrel. By the end of 2008, the oil price had slumped below $40 a barrel.

[60] *Barentsobserver*, "Shtokman, Yamal or both?" 12 December 2008, URL: http://www.barentsobserver.com/shtokman-yamal-or-both.4536847-28235.html (accessed 14 January 2009).

rights in under-explored basins with high potential".[61] Relevant areas for this strategy could be the South Kara, Yamal and East Barents basins, with joint venturing between Russian and major international oil companies. The second strategy, "niche operations", involves using existing infrastructure to maximize development in a particular area, as is currently happening in the North Slope. The Snøhvit field in the Barents Sea and the Prirazlomnoye field in the Pechora Sea might offer such opportunities. The third and last strategy identified by the energy consultants is "frontier exploration" in high-risk, potentially high-reward areas for companies. Such areas could be the Kronprins Christian basin east of Greenland and the Laptev Sea.[62]

Prospects for development

Although offshore areas of the Arctic are poorly explored and resource estimates are highly uncertain, statements such as "if the 25 per cent estimate is half right, then it is worth exploring", indicate that the region is increasingly interesting to the industry, and that USGS numbers have contributed to this perception among industry representatives also. Accordingly, the industry does not ignore the potential of the Arctic as an energy region, but is beginning to show an interest in assessing the commerciality of the region. However, the interest is fragile, concentrated on a few sub-regions and still not very high compared to interest in other energy regions. The Arctic presents real opportunity but also potentially real risk.

One would expect current prices and global economic recession to delay new investments in the region. Future developments are contingent on a relatively high price of oil, technological breakthroughs and various aspects linked to political framework conditions. Thus, a range of conditions need to be in place for initial industry interest to materialize in actual development. History has shown that these processes take time, and there are major uncertainties as to when we can expect considerable off-

[61] *Offshore-technology.com*, "Race to the Arctic". 01 April 2008. URL: http://www.offshore-technology.com/features/feature1800/ (accessed 3 January 2009).
[62] Information in this section is drawn from *offshore-technology.com* op cit.

shore Arctic development.[63]

Moreover, resource distribution and company interest in the region imply that the Arctic should be understood as a region of sub-regions that could contribute to global energy security at different points in time. No matter what sub-region we are talking about, however, significant contributions can come in a medium term perspective at best, with the perspective becoming more long term in a lower price scenario.

Finally, it should be mentioned that the future of the Arctic as an energy region also depends on other external factors such as production curves and prospects in established energy regions and findings in other new energy regions as well as the obvious demand factor.[64] With current oil prices, the Arctic does not seem like a competitive alternative to lower cost, but perhaps politically less stable, energy regions. That said, the oil price might change in the future; and given projections that demand will outgrow supply in the coming decades, specific sub-regions of the Arctic might become more interesting in the medium to long term. The next section will discuss possible challenges facing Arctic states, given such interest and increased energy extraction and transport in the region.

Political challenges

Thus, if we assume that economic activity linked to Arctic oil and gas extraction and transport will surge, what possible challenges can be identified from a political point of view? These will include a certain danger of increased tension among Arctic states, coordination and effectiveness

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[63] Even in a higher price scenario, development of new fields will take time. In April 2008, Shell representatives spoke of a 12-year timeframe before any production could be started, should the company find hydrocarbons in the Chukchi Sea, and noted that the oil price at the time had climbed above $100 per barrel. Moreover, the Norwegian Snøhvit gas field was discovered in 1984 and came into production only in 2007. The Russian Shtokman gas field was discovered in 1988, with a probably too optimistic estimated start-up date in 2013.

[64] The extent to which alternative energy will be able to replace energy supply from fossil fuels also has bearings on the development of the Arctic. With increased focus on climate change and, up until recently, a high oil price and increased perceived need for diversification, the alternative path, according to some, might have developed extensively by the time the Arctic has become relevant. However, most projections show that the energy mix in 2030 will consist of about 80 per cent fossil fuels.

of search and rescue operations and environmental clean-ups as well as possible terrorist attacks against oil and gas installations and infrastructure.

The most concrete challenge that is evident today is perhaps that perceptions of a race for the resources in the Arctic might actually lead to such a race. Concerns about challenges to the geopolitical environment in the region were put forward in a joint report by the EU Commission and Council in March 2008 and echoed by the EU Parliament in October the same year.[65] The recent Russian, Norwegian and US strategies for the Arctic more or less explicitly state the need for each respective country to follow its national (energy) interests in the region, including the process of securing territory,[66] and as already noted, Canadian authorities have described Canadian policy in the Arctic as "aggressive".[67]

Perceptions of a great resource potential in the Arctic have raised the stakes in the unsettled border disputes between coastal states in the region and might also complicate negotiations, particularly if the industry continues to show increased interest in the region. However, one important observation is that the major share of the recoverable oil and gas resources in the Arctic lies well within the Arctic coastal states' jurisdiction zones. This implies that the energy resources of the Arctic should not motivate a "mad dash for resources", since the potentially disputed areas, such as those in the vicinity of the North Pole, most probably do not hold vast resources, or if they do, it is very unlikely that much of it can be extracted in the foreseeable future. It is also clear from the section on industry interest that it is first and foremost the areas closer to shore, within the jurisdiction zones of Arctic states, that have attracted industry interest.

The major challenges of oil and gas exploitation in the Arctic

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[65] European Parliament, "Arctic Governance", European Parliament resolution of 9 October 2008 on Arctic Governance. URL: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+20081009+ITEMS+DOC+XML+V0//EN&language=EN#sdocta12 (accessed 10 October 2008).

[66] At the same time, all documents also emphasize the need for multilateral cooperation in the region.

[67] See also Katarzyna Zysk's thorough analysis of Russian security and defence perspectives on the Arctic in this issue.

should therefore not in principle be linked, as some argue, to "the question of who has the right to engage in exploration and exploitation".[68] Arctic coastal states should make efforts to ensure that political interaction in the region is based on accurate facts about the physical as well as the political characteristics of the region, and at the same time to support international arrangements such as the United Nations Convention on the Law of the Seas (UNCLOS), which the Ilulissat meeting among the Arctic coastal states in 2008 was an example of.[69] Also, promoting open and transparent energy markets, while at the same time respecting producing states' rights to control development on their respective shelves, would be one possible way to avoid geopolitical "fights" over Arctic resources.

Given increased activity in the region, the Arctic states also face particular challenges linked to search and rescue as well as environmental clean-up in connection with accidents in a harsh and remote Arctic environment. Terrorist attacks are not very likely at this point in time. However, should an attack take place, it would be extremely challenging for Arctic states to assist in the rescue work because of the lack of infrastructure. Increased activity therefore raises the need for emergency preparedness both in instances of environmental accidents and possible terrorist attacks. Monitoring of activities such as shipping is of major importance. Monitoring systems such as the AIS (Automatic Identification System), and particularly LRIT (Long Range Identification and Tracking) will be crucial in this work.[70]

There are already institutional frameworks in place to regulate Arctic oil and gas activities, such as The United Nations Convention on the Law of the Seas (UNCLOS), the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), the

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[68] See for example *offshore-technology.com* op cit.

[69] For the Ilulissat Declaration text, see http://uk.nanoq.gl/Emner/News/News_from_Parliament/2008/05/~/media/66562304FA464945BB621411BFFB6E12.ashx (accessed 17 March 2009).

[70] For LRIT, see IMO Resolution MSC.202(81) of 19 May 2006, SOLAS: *United Nations Treaty Series*, vol. 1184, p. 2.; for AIS, see IMO Resolution A.917(22) of 29 November 2001, UNCLOS: *United Nations Treaty Series*, vol. 1833, p. 3.

International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), the Espoo Convention on Environmental Impact Assessment in a Transboundary Context and the Agreement between Denmark, Finland, Iceland, Norway and Sweden Concerning Cooperation in Measures to deal with Pollution of the Sea by Oil or other Harmful Substances.[71] Generally, there is no specific legal guidance on how to perform offshore hydrocarbon exploitation in the Arctic, and some of the existing agreements are not ratified by all Arctic states. This poses great challenges as to the sustainability of future hydrocarbon exploitation in the region.[72] Moral guidance, however, exists within the framework of the Arctic Council. The Council has for example developed specific Arctic Offshore Oil and Gas Guidelines and an Oil and Gas Assessment Report with policy recommendations.[73] However, these are legally non-binding, and it is difficult to assess their effectiveness. Thus, in general, conventions that are applicable in the marine waters of the Arctic need to be specified by taking into consideration particular conditions of the Arctic, and the non-binding character of Arctic Council guidelines should perhaps also be up for consideration in order to place clearer obligations on the Arctic coastal states in the development of the region.[74]

The threats already described to the vulnerable Arctic environment resulting from increased activity in the region are perhaps one of the areas where the potential for collaboration among Arctic states is at its most promising, particularly through the work of the Arctic Council. Also, when it comes to securing installations and transport routes, the potential for added value, for instance by NATO, is good. NATO has recently paid increased attention to issues of energy security, and could thus play a role, particularly when it comes to the task of securing installations and transportation. This will become increasingly important in the medium to long term if or when activity in the Arctic intensifies. However, on the basis of

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[71] This section is based on Koivurova and Hossain, op cit.
[72] Koivurova and Hossain, op cit., p. 37.
[73] AMAP, op cit.
[74] On the other hand, the very fact that Arctic Council guidelines are not legally binding might make it easier for Arctic states to engage in discussions leading up to the guidelines and thus contribute to policy-making by setting an agenda that has been discussed by all involved states.

the foregoing assessment of industry interest in the region, it is clear that there are few indicators that make it urgent for the Alliance to move its practical focus toward the High North at this point. Nevertheless, like other actors in the region, the Alliance should closely monitor energy developments and associated relations between Arctic states and other stakeholders in the region in order to be prepared for a variety of scenarios. However, the challenge for NATO and individual Arctic states alike primarily comes down to getting reactive policy-makers to plan ahead for possible long term scenarios in a remote corner of the world, at a time when the globe is full of current challenges that scream for immediate action.

Arctic states should thus make collective efforts to evaluate and prepare for various possible Arctic energy development scenarios. In order to be prepared, relevant actors need more knowledge about the region as an oil and gas region. In making these collective efforts, Arctic states should take advantage of the increased climate of cooperation that emerged in the region in the post cold war years and further strengthen cooperation in a forum such as the Arctic Council, which has served to develop a stronger regional identity. Efforts could be made to strengthen this regional identity, as there are many common challenges linked to oil and gas developments throughout the entire Arctic region, but at the same time specific energy characteristics that point in the direction of a region of sub-regions rather than one circumpolar region.

Conclusion

The discussion in this paper shows that no certain projections can be made about the future of the Arctic as an energy region. Industry interest in parts of the Arctic is slightly on the increase, but it is fragile, and one should not take for granted that activity in offshore areas will surge in the near future. This will depend on factors such as the oil price, political framework conditions, technological developments, global demand and developments in other energy regions. With these uncertain variables, industry interest in the region is not very robust at the moment.

Furthermore, it is not likely that development will take place in

remote offshore areas outside nation states' jurisdiction areas for the foreseeable future. Those parts of the Arctic ocean that lie within the exclusive economic zones of Arctic coastal states still remain to be developed, and will be developed first. This means that the scenario which is most frequently described in public debate and also among public officials within Arctic and non-Arctic states alike, namely that of "a new cold war" and "a mad dash for resources" is no more certain than a scenario forecasting low economic activity and low future commercial and political interest in the Arctic oil and gas resources, perhaps also resulting in a lower degree of polarization among Arctic states in the medium term than what can be read from the current debate.[75]

If we assume sharply increased activity in the medium to long term, however, the unevenly distributed resources in the Arctic mean that the region will not contribute to energy security for many states in the way that many initially expected, because their portion of the Arctic resources is fairly small. With Russia as the major energy player, the region only to a certain extent represents new opportunities from a political point of view, as diversification of regions but not producing states is the reality.

Additionally, the uneven distribution of resources in the Arctic has led us to pose the question of whether it would be more fruitful to talk about the prospects in the different sub-regions of the Arctic, and how and when these could potentially contribute to global energy security, rather than treating the Arctic as one region. One thing remains clear: if the Arctic contains anything close to 22 per cent of the world's remaining recoverable oil and gas resources, resources will come on-stream in portions from different sub-regions in a medium to long term perspective.

Lastly, we should not overestimate the potential for "a mad dash

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[75] In another article in this issue, "High North Shipping: Myths and realities about Arctic shipping routes", Frédéric Lasserre reaches a similar conclusion based on his analysis of the shipping industry's interest in the Arctic, indicating that the discrepancy between political and commercial perspectives on the region, with the political level more enthusiastic about the pace of future developments than industry interest would implicate, is not typical solely of the oil and gas issue.

for resources" in the Arctic. This article has argued that development hinges upon industry interest in the region, and that this is more fragile than what certain policy statements rest upon. Cold War rhetoric with reference to a vast amount of recoverable resources should be avoided, as it is based on political and emotional forecasts rather than facts about the real potential for energy development and international cooperation in the region.

HIGH NORTH SHIPPING: MYTHS AND REALITIES

Frédéric Lasserre*

Whether it is an illustration of climate change or a natural phenomenon, fast receding summer sea ice in the Arctic has triggered speculation on the opening of much shorter sea routes linking Europe via the eastern North American coast to Asia. The prospect of growing shipping traffic in Arctic waters, especially through the Northwest Passage in the Canadian Arctic archipelago, or through the Northeast Passage north of Russia, has fuelled rhetoric on the status of these Arctic routes and controversy over the pace of such shipping growth. Few analysts question the common belief that it is only a matter of time before new sea lanes will be operational in the Arctic. This prospect is at the very heart of the ongoing debate on security in the Canadian Arctic, for it raises the issue of control of such navigation, and therefore of Canadian sovereignty over the Northwest Passage and the Canadian Arctic waters.

But how much truth is there in the widely accepted notion that melting sea ice, opening up Arctic channels in the summer, will lead to fast developing sea traffic in the region? Shorter distances seem to be the main factor computed in by commentators, but many others are taken into account by shipping companies before their managers decide to develop Arctic shipping. Indeed, shipping companies are in no rush to develop what they perceive as a risky and not necessarily profitable route.

1. Facts: Arctic sea ice is receding in the summer

The year 2007 saw a record low in minimum sea ice extent, and

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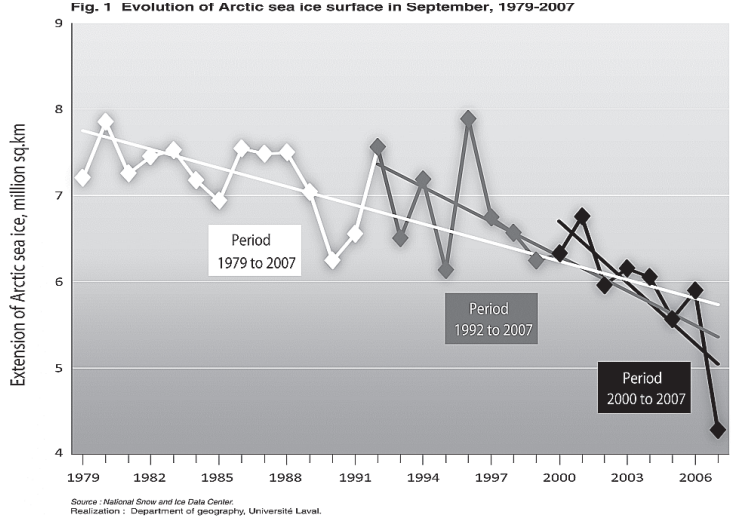
the data show a trend towards an accelerated decline of the ice (Fig. 1, 2). Five years ago, climatologists talked about a possible ice-free Arctic Ocean in the summer by the year 2100, but models now suggest that this could happen as early as 2015[1]. As figure 1 shows, ever since Arctic-wide data for the extent of sea ice have been computed, a general decline trend has been observed. To be sure, there is an interannual variability: it is difficult from year to year to predict the extent of the ice the following year. But the general trend definitely points towards a decline.

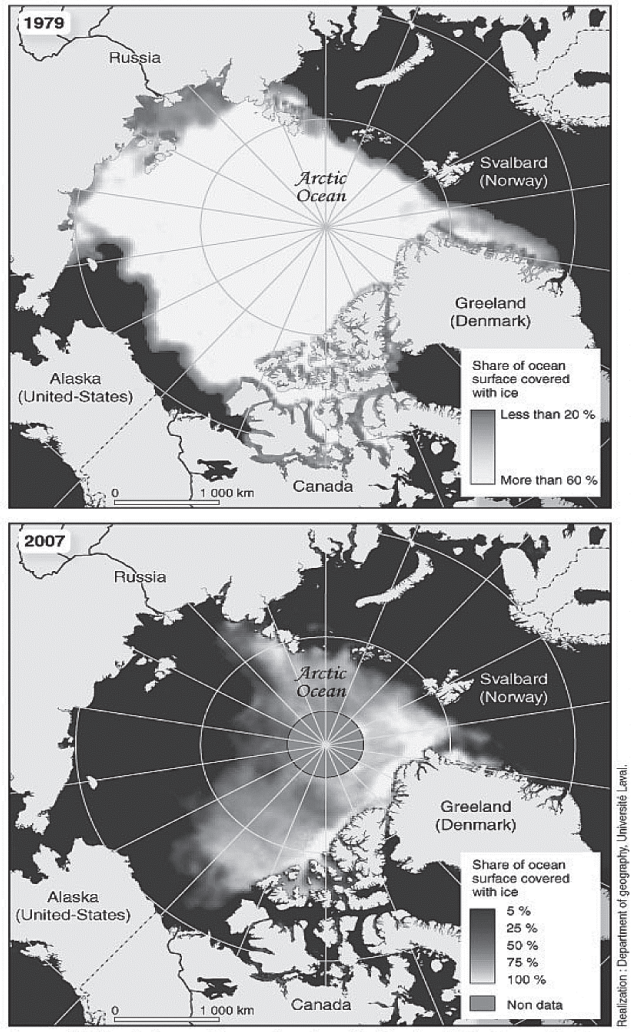
Regression trends for shorter periods follow a steeper slope as time goes by, indicating that the pace of melting has accelerated over the past years. This means that the ice is melting faster and faster, with the prospect of ice-free summers as early as 2015 in some models, underlining the real possibility of little ice remaining in the summertime.

Fig. 1 Evolution of Arctic sea ice surface in September, 1979-2007



[1] Kwok, R. (2006), " Exchange of sea ice between the Arctic Ocean and the Canadian Arctic Archipelago", *Geophysical Research Letters*, 33, L16501, doi:10.1029/2006GL027094; Nghiem, S. V. *et al* (2006), "Depletion of perennial sea ice in the East Arctic Ocean ", *Geophysical Research Letters*, 33, L17501, Doi:10.1029/2006gl027198.

Fig. 2 Ice concentration in early September (minimum extension)



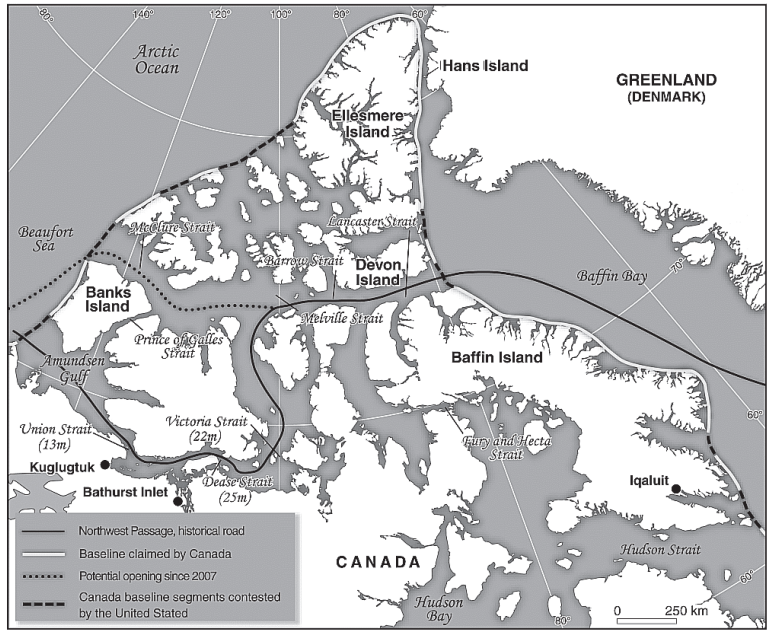
Sources : Global Sea Ice Extent and Concentration et State of the Cryosphere, National Snow and Ice Data Center, Université du Colorado; Climate Modelling Group, Université de Victoria; Service Canadien des Glaces; Center for Global Change and Arctic System Research, Université de Fairbanks; Earth Observatory – NASA, octobre 2007.

This receding sea ice opens up channels that were long sought by Europeans to reach Asia, across the fabled Northwest or Northeast

Passages. The Northwest Passage is generally understood as the sea stretch from Lancaster Sound to the Bering Strait, although many authors limit its scope to the Canadian Archipelago. The Northeast Passage, also called the Northern Sea Route by Russia, follows the Siberian Arctic coast and crosses Russian Arctic straits between the mainland and Russian Arctic archipelagos: Novaya Zemlya, Severnaya Zemlya, the New Siberian Islands and Wrangel Island. There is a difference here between the Northwest Passage and the Northeast Passage: the Northwest Passage rests almost entirely in Canadian-claimed internal waters, if it is defined as extending from Baffin Bay to the Beaufort Sea, whereas the Northeast Passage merely skips across Russian straits and thus Russian-claimed internal waters, but for the most part lies outside Russian territorial waters, except in a few places. The route lies rather in the Russian Exclusive Economic Zone (EEZ), which is not neutral, since Russian regulations on shipping along the Northern Sea Route (NSR), based upon article 234 of the UN Law of the Sea, oblige ships to respect Russian regulations within Russia's EEZ, particularly as regards mandatory piloting and icebreaker escort.

The opening up in August 2007 of the northern segment of the Northwest Passage across McClure Strait, offering a deep draft passage (Fig. 3 on page 183) for the first time in history, was widely covered in the media.

Fig. 3 The Northwest Passage



Source : Lasserre, Frédéric. « Le passage du Nord-Ouest : une route maritime en devenir ? », Revue Internationale et Stratégique (Paris), n°42, p.143-160, 2001

The potential opening up of shipping routes through the Northwest Passage, across the Canadian archipelago, as well as along the Northeast Passage, north of Siberia (Fig. 4), has raised security concerns as it implies a potential surge in navigation of all sorts of ships. Analysts have speculated about potential threats to the environment should an oil tanker run aground or sink; to military security should terrorists try to infiltrate North America through the back door of a sparsely populated and poorly monitored area; or to human security should a passenger ship hit a growler and sink, as happened to the *MS Explorer* in Antarctica in November 2007. The question of sovereignty over the Northwest Passage (claimed as internal waters by Canada) and the Northeast Passage, crossing areas claimed by Russia as internal waters, boils down to who controls shipping along them.

Fig. 4 The Northeast Passage

Source : DUNLAP William (1996) Transit Passage in the Russian Arctic Straits, Maritime Briefing vol.1 n°7, International Boundary Research Unit, University of Durham.

But this whole debate assumes there will be more traffic, whereas this is, so far, speculation, at best an educated guess: shipping, if increasing presently, is still far from active in these Arctic waters. To what extent is traffic going to expand in these waters?

2. Natural resources exploitation would fuel regional shipping

Sea ice melting opened up the possibility of easier natural resources extraction, although exploitation will remain very costly because of the remoteness of the area and the harshness of the climate. If mining and hydrocarbon exploitation does undergo a fast growth, this will sustain developing sea traffic, since products will often be shipped to markets by sea, and mines and well installations will have to be supplied, probably by sea as well. Natural resources exploitation would, therefore, fuel shipping: not transit shipping, but a traffic aimed at servicing local exploitation.

The media have widely reflected the idea that the Arctic holds vast

deposits of minerals as well as oil and gas. A 2000 US Geological Service[2] is often wrongly quoted as estimating the Arctic area to contain about 24% of hydrocarbon reserves still to be discovered. A more specific and accurate estimate study published by the USGS in May 2008 put the estimated Arctic hydrocarbon reserves (in the region comprised north of the Arctic circle) at approximately 90 billion barrels of oil, 47, 261 billion cubic meters of natural gas, and 44 billion barrels of natural gas liquids.[3] Indeed, since the mid-1990s, with the gradual opening of the region and the increase of resource prices due to the fast economic growth of India, China, Brazil and other developing countries, several oil and mining companies have invested in the Arctic to intensify exploration and exploitation.

Nobody doubts that the Arctic holds large reserves of hydrocarbons and minerals [4] (Fig. 5, 6). Russian firms know hydrocarbon deposits lie in the Barents and Kara Seas, and are considering exploring the East Siberia Sea, where data are lacking. According to current estimates, the Arctic shelf north of Siberia contains about 80% of Russia's potential hydrocarbon resources, which explains Russia's interest in Arctic exploration and exploitation.[5] The Shtokmanovskoe gas field is probably the world's largest known offshore gas field. Its reserves reportedly total about 3,200 billion m? of gas and more than 31 million tons of gas condensate.[6]

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[2] U.S. Geological Survey. *World Petroleum Assessment 2000 - Description and Results*, http://pubs.usgs.gov/dds/dds-060

[3] USGS, *Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle*, http://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf, accessed Oct.25, 2008. The EIA estimated world proved resources in 2007 at 1237.7 billion barrels of oil (incl. gas liquids) and 178, 056 billion m? (EIA, August 27, 2008).

[4] Lasserre, Frédéric (2004). "Les détroits arctiques canadiens et russes. Souveraineté et développement de nouvelles routes maritimes". *Cahiers de géographie du Québec*, 48(135); Lasserre, Frédéric (2008). "Étude des impacts géopolitiques de l'ouverture du Passage du Nord-Ouest à la navigation", *Cahiers de l'Institut EDS*, Série Vulnérabilité et adaptation aux changements climatiques, 1, November, 14 p.

[5] Timo Koivurova and Kamrul Hossain. *Offshore Hydrocarbon: Current Policy Context in the Marine Arctic,* Arctic Transform Program, September 4, 2008, p.8.

[6] "Shtokman Gas Condensate Deposit Barents Sea", *offshore-tecnology.com*, www.offshore-technology.com/projects/shtokman/. The *Barents Observer* puts forward even larger figures, 3,700 billion m? and 37 Mt of gas condensates. Barents Observer, "The Shtockman Project", www.barentsobserver.com/index.php?id=4551950.

Oil exploration is not new to Alaska or to the Canadian Arctic. The Chukchi Sea, north of Alaska, is poorly explored. Shell spent $2.1 billion earlier this year for exploration rights in the remote Chukchi Sea off Alaska's northwest coast, on top of a combined $83.7 million spent to acquire Beaufort Sea exploration rights in lease sales held in 2005 and 2008.[7]

Total Canadian Northern oil reserves were estimated in October 2007 to reach 1,665 million barrels of oil (0.6% of Saudi Arabia's proven reserves) and 886.7 billion m? of gas – respectable, but not enormous reserves. In the Beaufort Sea and Mackenzie delta, deposits are promising (about 1,020 million barrels of oil) but need to be accurately assessed, while oil and gas are present in the Sverdrup Basin in the Canadian archipelago: reserve estimates show about 334 million barrels of oil and 493 billion m? of gas[8]. The Indian and Northern Affairs, and Natural Resources ministries of Canada actively sold exploration licenses in 2007 and 2008: on July 19, 2007, Imperial Oil and Exxon paid 585 million $ for just one exploration block in the Beaufort Sea, 120 km offshore;[9] in June 2008, British oil giant BP announced it would spend $1.2 billion to explore a block of the Beaufort Sea as well[10]. In 2001, a consortium led by Imperial Oil Resources of Toronto – including ExxonMobil Canada, Shell Canada Resources and Conoco Canada – announced it would move along in completing the regulatory process necessary for building the Mackenzie Valley Pipeline.[11] The Canadian government hopes to give its final approval by spring 2009.[12] In April 2008, BP and ConocoPhilipps proposed a project to build a $32 billion Alaska Pipeline to carry gas from the American Beaufort Sea to North American markets, competing with a similar proposal from TransCanada Corp.[13]

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[7] FXStreet, December 19, 2008.
[8] Kenneth Drummond (Drummond Consulting), *Canada's Discovered Oil and Gas Resources North of 60*, p.5-6.
[9] *Oil & Gas Insight*, July 2007; Reuters, July 19, 2007.
[10] *Oil & Gas Journal*, "Special Report: Canadian drilling activity continues to slow", 106(40), October 27, 2008, www.ogj.com/articles/save_screen.cfm?ARTICLE_ID=343477
[11] *New York Times*, November 16, 2002.
[12] "Mackenzie pipeline going ahead: Prentice", *Calgary Herald*, December 4, 2008.
[13] Apex Resource Group, press release, April 14, 2008.

Mining is also promising in the Arctic: while nickel, copper and iron deposits have been exploited in Siberia and northern Norway for decades, exploration has only recently increased its pace in Greenland and northern Canada. In Greenland, mining firms are actively exploring for iron, gold, lead and zinc. In Canada, companies are looking for the same minerals, as well as nickel, uranium and diamonds. During the 1990s, several diamond discoveries in the continental part of Nunavut and the Northwest Territories transformed Canada into the world's third diamond producer. Prospection showed that deposits of kimberlitic – the diamond-bearing mineral – are also present in the Canadian archipelago. Huge nickel discoveries have been made in Raglan, in northern Quebec, as well as in Paulatuk, on the Northwest Passage shore. On central Baffin Island, the Mary River mine will exploit about 205 million tons of iron deposit and should begin the exploitation in 2010.

From 2004 to 2007, mineral exploration and appraisal investments rose by 110% in the three northern Canadian territories (Yukon, Northwest Territories and Nunavut).[14] Several diamond mines have opened in Nunavut and the Northwest Territories since 1995, making Canada now the third largest diamond producer in the world, with 1, 250 million C$ worth in 2007, while iron, uranium, gold, nickel, copper and zinc mining sites are expected to enter into production in the next few year.[15] Among the foreign firms that have invested massively to develop exploration in the Canadian Arctic are Daewoo (South Korea), BHP Billiton and Zinifex (Australia), AREVA (France), Rio Tinto (UK), De Beers (South Africa), Xstrata (Switzerland), Newmont Mining Corporation (USA).

Exploration is also very active on the western and eastern shores of Greenland[16] (Lasserre, 2007, 2008). On 9 January 2008, the Greenlandic

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[14] Natural Resources Canada, *Exploration And Deposit Appraisal Expenditures by Province and Territory*, 2004-2008, http://mmsd.mms.nrcan.gc.ca/stat-stat/expl-expl/1-eng.aspx, accessed Feb. 16, 2009.

[15] *Nunavut Mineral Exploration, Mining and Geoscience Overview 2007*, Indian and Northern Affairs, Ottawa and Iqaluit.

[16] Lasserre, 2008, *Cahiers de l'Institut EDS*, *op. cit*.; Lasserre, Frédéric. "Arctique : la course aux énergies s'intensifie", *Pôles Nord & Sud* (Paris), 1, Fall 2008, p.52-67.

mineral and petroleum ministry signed an agreement with Cairn Energy PLC, a Scottish company which has proved its efficiency in oil and gas exploration and exploitation, to join the search for oil and gas in Greenland.[17]

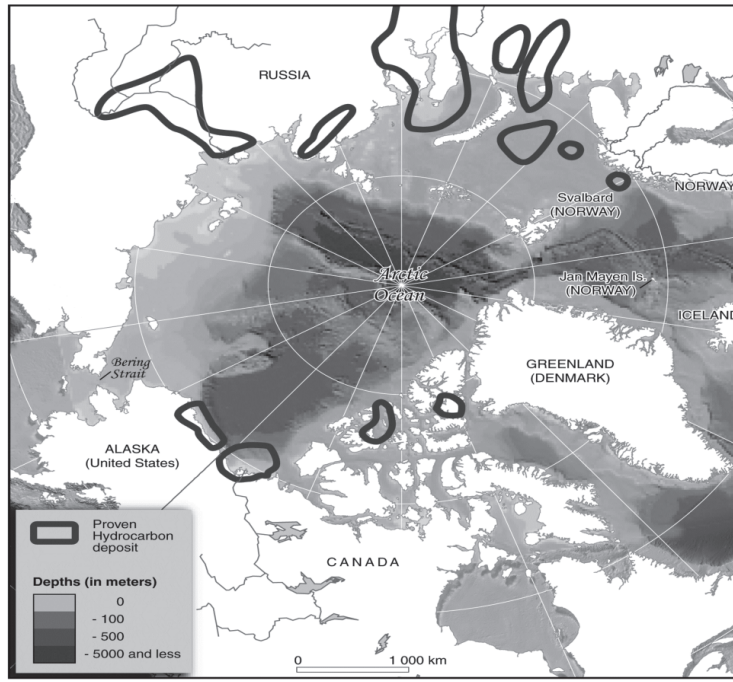
Operating a mine, oil or gas field in the Arctic remains costly and difficult, despite climate change and the melting of sea ice. Companies were lured to the area because of the prospect of longer operation seasons as well as increasing world resource prices. The economic downturn witnessed since September 2008 could well slow down the exploration and exploitation processes, as slower demand for minerals has sent most of their price indexes down, making profitability of a remote mine less likely. De Beers laid off several workers in its Snap Lake diamond mine in Canada, and Tahera Diamonds, which operated the Jericho diamond mine in Nunavut, went bankrupt in January 2009.[18] Most exploration activities have recently been put on hold because of the difficult financial situation, which makes operating in the Arctic extremely costly.[19]

[17] Speech by Minister for Minerals and Petroleum Kim Kielsen (of Greenland) at: www.cairn-energy.plc.uk/downloads/Greenland_Speech_by_Minister_Kim_Kielsen_9_January_2008.pdf (viewed 16.02.2009).

[18] Reuters, "Tahera Diamond requests stock halt, sees no value", Feb. 6, 2009.

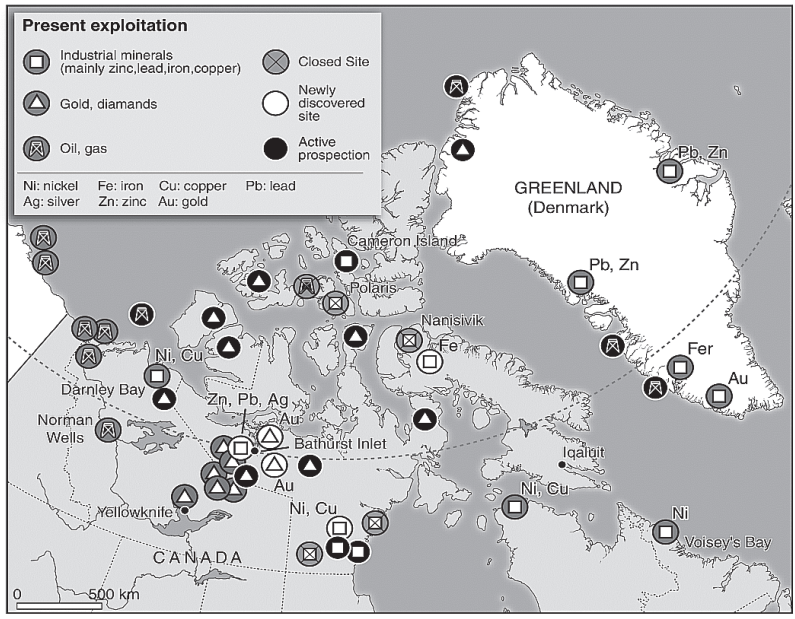
[19] "Exploration company prepared to face economic challenges", *Mining Weekly*, January 30, 2009; "Canadian mining sector gears up for the big chill", *Mining Weekly*, February 13, 2009; "Tough times for mining in Canada", *SikuNews*, November 20, 2008.

Fig. 5 Hydrocarbon deposits in the Arctic



Source : Lasserre, Frédéric et Caroline Rivard. « L'exploitation des ressources naturelles du sous-sol dans l'Arctique : vers une rapide expansion ? », Pôles Info n°13, en ligne sur le site de l'association du Cercle polaire (Paris) et en partenariat avec l'Institut Polaire Français (IPEV), www.lecerclepolaire.com, 11 octobre 2007, 25 p.

Fig. 6 Mining exploitation and exploration in the Canadian Arctic



Source : Lasserre, Frédéric et Caroline Rivard. « L'exploitation des ressources naturelles du sous-sol dans l'Arctique : vers une rapide expansion ? », Pôles Info n°13, en ligne sur le site de l'association du Cercle polaire (Paris) et en partenariat avec l'Institut Polaire Français (IPEV), www.lecerclepolaire.com, 11 octobre 2007, 25 p.

However, the trend toward the melting of Arctic ice is unlikely to stop. Besides, growth remains high in China, India and Brazil at the time of writing (February 2009), sustaining global demand for metals and minerals; and world economic expansion will probably recover in a matter of time. While mining firms have recently said they would slow down their activities in the Arctic, market and climate trends indicate a resumption of Arctic mining and oil exploration.

Mining and hydrocarbon exploitation trigger increased shipping activity. Mines on the continental part of Arctic Canada, like the Ekati gold mine, are, for now, serviced by winter roads; but these roads must be rebuilt every year and have a shorter lifetime as well as a greater vulnerability in autumn and spring because of warming temperatures. Building a permanent road would be extremely expensive because of spring thaw, melting permafrost and the sheer distance: the Soviets gave up this option

to service their mines in northern Siberia and as early as the 1930s opted for the development of the Northern Sea Route along the Siberian coast. It is therefore likely that even continental mines will try to develop a sea link. On 5 July 2007, a consortium of seven mining firms, including Rio Tinto, announced they are sponsoring environmental impact studies to construct a deep-water port in Bathurst Inlet, on the Coronation Gulf in the Canadian Arctic.[20]

Mining activities will boost shipping in the area both to ensure the export of the ore produced, but also to service the mine with equipment and staff. The Canadian shipping company Fednav has already ordered two ice-strengthened cargo ships to service the Northern Labrador nickel mine of Voisey's Bay and the Northern Quebec mine of Raglan. Chosen to act as the logistics operator for the Mary River iron mine in Baffin Island, it ordered eight more vessels it had designed: a cape-size ore carrier, Polar Class 4, with a capacity of 135,000 dead weight tonnes (dwt), suitable for dedicated operations between the port and Europe. Baffinland Iron Mines Corporation must build on the south shore of Baffin Island and Europe over a 12-month operating period. A fleet of eight vessels will be required to fully service the project requirements."[21]

In Siberia, mining operations have long been serviced by ship, but the expected increase in operations, both for mineral exploitation as well as for oil and gas, is expected to sustain a strong shipping growth. Shipyards in Korea (Daewoo, Samsung), Japan (Mitsubishi Heavy Industries) and Finland (Aker Finnyards) have their order books full for ice-strengthened cargo ships[22], most of them ordered for the western part of the Russian Arctic.

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[20] "Arctic port plan gathers steam". *Toronto Star*, July 4, 2007; "New Arctic port plan for Northern miners". *National Post*, July 5, 2007.

[21] Baffinland Iron Mines Corporation, "Port Facilities and Ocean Transport", *Mary River Project*, www.baffinland.com/MaryRiverProject/Operations/PortFacilities/default.asp~~x~~, December 16, 2008.

[22] Lasserre, Frédéric. "Arctique: la course aux énergies s'intensifie", *Pôles Nord & Sud* (Paris), 1, Fall 2008, p.52-67.

3 Transit shipping: obstacles in the way

3.1 *A much shorter distance… always?*

Journalists and analysts, when considering the opening of the Northwest Passage (NWP), usually refer to the advent of a new seaway linking Europe and Asia, embodying at last this fabled route searched by European explorers since the 16th century, and the subject of epic stories like that of the ill-fated Franklin expedition in 1845. The argument rests on the fact that distance is much shorter between Europe and Asia through the NWP or the Northeast Passage (NEP) than across the Suez or Panama canals. From Rotterdam to Yokohama, the distance is thus 13, 950 km with the NWP, 13, 360 with the NEP, against 23, 470 km through Panama, or 21 170 km across Suez.

Therefore, there is indeed a potential shortcut through the Arctic routes for shipping in the northern hemisphere. If speed could be the same – a major hypothesis – then it could represent vast savings in fuel and crew costs for shipping companies, as well as more goods to transport if more rotations can be set up. However, the distance argument, under closer scrutiny, may reveal more subtle aspects.

Table 1. Distance between major ports, using the Northwest Passage, Suez or Panama, depending on the origin/destination.

Origin-destination	Panama	Northwest Passage	Northeast Passage	Suez and Malacca
London - Yokohama	23 300	14 080	13 841	21 200
Marseilles - Yokohama	24 030	16 720	17 954	17 800
Marseilles - Singapore	29 484	21 600	23 672	12 420
Marseilles - Shanghai	26 038	19 160	19 718	16 460
Rotterdam - Singapore	28 994	19 900	19 641	15 950

Rotterdam - Shanghai	25 588	16 100	15 793	19 550
Rotterdam - Yokohama	23 470	13 950	13 360	21 170
Hamburg - Seattle	17 110	13 410	12 770	29 780
Rotterdam - Vancouver	16 350	14 330	13 200	28 400
Rotterdam – Los Angeles	14 490	15 120	15 552	29 750
Gioia Tauro (Italy) - Hongkong	25 934	20 230	21 570	14 093
Gioia Tauro - Singapore	29 460	21 700	23 180	11 430
Barcelona - Hongkong	25 044	18 950	20 380	14 693
New York - Shanghai	20 880	17 030	19 893	22 930
New York - Hongkong	21 260	18 140	20 985	21 570
New York – Singapore	23 580	19 540	23 121	19 320
New Orleans - Singapore	22 410	21 950	25 770	21 360
Maracaibo Oil Terminal (Venezuela) - Hongkong	18 329	19 530	23 380	22 790

Source: author calculation using ArcGIS and MapInfo softwares. Northwest Passage route using McClure Strait; Northeast Passage route using Kara, Vilkitski, Sannikov and Long Straits. No political impediment to navigation considered.

Green: shortest distance. Yellow: less than 15% difference.

This examination reveals that, although on the one hand the distance factor is indeed very favourable to routes using the NWP or the NEP for northern origin/destination couples, on the other hand the more south the ports are located, the less marked this advantage is. While the shortcut is obvious in the case of ports like London and Yokohama, it is much less so from Marseilles to Yokohama, or from Rotterdam to Shanghai, for instance, and all the more so from Marseilles or Gioia Tauro to Singapore or Hongkong.

3.2 *The Arctic passages are still difficult routes*

Besides, unlike warmer seaways, Arctic routes will always present specific difficulties, even if they open up to seasonal navigation:

• Even though a definite trend of reduced surface and thickness of the sea-ice cover can be documented, there will always be ice in the winter time, as well as the polar night and Arctic temperatures in the winter. What may change here with climate change is the approximate date when the sea-ice breaks up in the spring – sooner than now – and when it reforms in winter – later than now. It is impossible, from one year to the next, to anticipate the exact date of these events, thus leaving shipping firms guessing when they could begin and end their services through Arctic routes.

• The pace and geography of the spring breakup will be different from year to year, allowing drifting ice to move with currents and winds and possibly clog specific straits, especially in the Canadian Arctic, where, according to most models, the remnants of the multi-year ice will resist the longest: as the ice gradually breaks up, ice chunks could penetrate the archipelago and drift into sea channels.[23] These ice chunks can present a real hazard to shipping: small in size – a growler is about a meter large – they nevertheless weigh a lot, more than a metric ton; being made of multi-year ice, they are extremely hard, whereas they barely float above the sur-

[23] Lasserre, 2004, op. cit.; Fortier, Louis; Jean-Louis Duchesne, Sonia Hachem and Frédéric Lasserre. " Réchauffement climatique et fonte de la banquise: vers un passage du Nord-Ouest totalement ouvert? ", Proceedings of the convention *Changements climatiques et ouverture de l'Arctique: quels impacts stratégiques pour le Canada?*, Research Program Peace and Security, IQHEI, Laval University, Quebec City, November 17, 2006, online, December 2007, 10 p.; Guy, Emmanuel (2006). "Evaluating the viability of Commercial Shipping in the Northwest Passage", *Journal of Ocean Technology,* 1(1).

face, making detection very difficult, and hitting one at full speed could prove devastating for a ship hull. In November 2007, the cruise ship *MS Explorer* sank in Antarctica after hitting a growler, although it had an ice-strengthened hull.[24] Navigation could therefore be slower than with normal routes, increasing transit time. Even icebreakers slow down when navigating among multi-year ice chunks.

• Mapping is still inadequate in these waters. To be sure, this will gradually be corrected as exploration expeditions increase in number, but, if we exclude the main historical channels, depths and subsurface features, as well as marine tables, are often poorly recorded. As an example, on 22 October 2006, when the Canadian icebreaker Amundsen crossed the Bellot Strait with the author on board, marine tables stated she would have the tide against her; in fact, the reverse proved to be the case.

• In the southern Northwest Passage and Northeast Passage routes, several straits display low drafts: the Union Strait, for instance, is only 13 m deep, inadequate for larger ships. The northern route of the Northwest Passage, through McClure Strait, is 200 m deep, allowing any ship to go through, and it opened up for the first time in 2007, but it is exposed to drifting ice throughout the summertime. This does not prevent navigation, but will limit the options for shipping companies as ship size has steadily increased since the 1960s, especially in the container industry, from an average capacity of 500 TEUs (container unit) to Panamax ships in 1984 (4,400 TEUs) and then to 8, 000 TEU ships in 2003, with draft exceeding 14.5 m.

• Climate change has triggered the beginning of the melting of the Greenland ice cap: the ice shelf is speeding up through glaciers towards the sea and the rhythm of iceberg calving has increased significantly. Many more icebergs will drift in Baffin Bay. Although they are detectable, their increased number, especially on foggy days, which are likely to be more numerous, will force ships to reduce speed.

• Navigation in these waters requires a strengthened hull, powerful night ice spotting radars, an experienced crew, and equipment to cope with icing, protect cargo from frost, etc., thus increasing costs.

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[24] Stewart, E.J. et D. Draper (2008). "The Sinking of the MS Explorer: Implications for Cruise Tourism in Artic Canada", *Arctic*, 61(2).

• Insurance companies will demand that this equipment be present, otherwise, as Lloyds explained, they will refuse to insure. Premiums are much more expensive: twice as expensive as normal prices.[25]

3.3 *Container shipping: just-in-time prevails*

What can we conclude from these observations on shipping? It is important to remember that containerized traffic is operated in a just-in-time mode. Shipping firms in this market do not merely sell transportation; they sell a schedule and a delivery date. A strait closed temporarily because of drifting ice, a late breakup of sea ice, or a concentration of icebergs or drifting ice, could lead to delays, since the ship would have to slow down or change route. These delays would prove, in such a competitive industry, much more costly than the fuel economy that the Northwest Passage could bring, for any delivery delay entails penalties to the shipping firms as well as a damaged credibility. During the time it takes to ship from Rotterdam, for instance, to the Northwest Passage, drifting ice can clog a few straits and thus force a ship to take the Panama route.

Besides, the seasonality of the route implies that container shipping firms would have to change schedules twice a year, which is costly and increases the risk of expensive delivery errors.

Finally, most container shippers integrate several stopovers in their routes, so as to maximize their potential market. For instance, on the route between the Mediterranean and Eastern Asia, CMA-CGM stops over in Damietta (Egypt), Jeddah (Saudi Arabia) and Djibouti; Hapag-Lloyd also includes stopovers in Jeddah and Colombo (Sri Lanka) before reaching Singapore; Rickmers Linie, for its Eastern US-Asia line, stops over in Hamburg, Antwerp and Genoa (source: company websites). With an Arctic route, where there is no berthed port – except in Greenland and in Siberia – and a very small container market, shippers must consider whether a reduced distance will make up for the loss of the market incurred by several stopovers.

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[25] Interview with Lloyds executives, London, November 23, 207

It is therefore dubious that Arctic routes will soon be plied on a regular basis by container ships. Bulk shipping (cereals, minerals, wood, cement…), however, less reliant on a specific delivery date and not operating on a timetable, could be more interested in testing the cost opportunities of the Arctic Passages, with lightly reinforced ships (Baltic classes 1AS, 1A or 1B, corresponding to new IACS Polar Classes 7 or 8), but the cost of such transits and therefore the prices these shippers could offer remain widely debated.[26]

3.4 *What does the industry think?*

The research group headed by the author conducted a survey among 125 shipping firms from Asia, Europe and North America between September 2007 and October 2008. The interviews were part of an open-answer, qualitative survey of the company's position regarding Arctic transit routes. We collected 34 answers, an answer ratio of 27.2% - quite satisfying given the reluctance displayed by the industry to talk about their strategies.

- Answering firms : 15 European, 9 Asian and 10 North American
- These shipping firms operate 3,374 ships; in the container industry, they represented 62% of the market in 2008

Here is a summary of the collected answers:[27]

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[26] Lasserre, 2004, 2008, *op cit.*; Guy, 2006, *op cit.*; Somanathan, Saran; Peter Flynn and Jozef Szymanski (2006). "The Northwest Passage: A simulation", Simulation Conference, 2006. WSC 06. Proceeding of the Winter Volume, Issue, 3-6 Dec. 2006, p. 1578-1585; Somanathan, Saran *et al* (2007). "Feasibility of a Sea Route through the Canadian Arctic", *Maritime Economics and Logistic*, 9, 324-334. doi:10.1057/palgrave.mel.9100185; Somanathan, Saran; Peter Flynn and Jozef Szymanski (2008). "The Northwest Passage: A simulation", *Transportation Research Part A*, online 16 September 2008.

[27] Adapted and updated from work first publisched in Lasserre, Frédéric (2008). "Étude des impacts géopolitiques de l'ouverture du Passage du Nord-Ouest à la navigation", *Cahiers de l'Institut* EDS, Série Vulnérabilité et adaptation aux changements climatiques, 1, november, 14 p.

Table 2. Industry survey on Arctic transit routes

	Asia	North America	Europe	Bulk	Container	Dual
Interest for Arctic transit	2	6	3	5	2	3
Maybe, it could be an option	1	0	2	2	0	0
No interest	7	4	10	6	14	3

Note: Among answering firms in North America, several interested firms are already present in the Arctic, such as Fednav, Oceanex, Nunavut Eastern, Desgagnés. In Europe, among answering firms, only Sovcomflot and Beluga are already present in the region.

From this survey, it is apparent that:

- Interested firms are located in any continent but are not numerous: 11 firms out of 34.
- Shipping firms operating in the bulk or dual segment of the market appear to be pondering their options, but
- Container shipping does appear reluctant to develop routes in these regions.

Conclusion

- The ice cover is definitely displaying a fast retreat in the summertime, opening up straits that not too long ago were considered closed. However, there remains a strong inter-annual and temporal variability: some places will be ice-free one year and not the following; it is impossible to predict when a specific place will be ice-free and for how long.
- Some climate scenarios suggest the Arctic Ocean could open up in the summertime as early as 2015. The shortest route between

Europe and Asia, in this case, would not be Arctic passages but the direct route across the North Pole. If this scenario should materialize, then this Arctic Ocean route would prove far more attractive for bulk shipping than complicated routes through the Northwest or Northeast Passages.

- Climatic scenarios underline a much faster opening of the Northeast Passage than the Northwest Passage. However, Russian authorities have not been able, so far, to use this argument to develop traffic, despite their experience, equipment (several powerful icebreakers) and infrastructure (several ports along the NSR, as opposed to the Northwest Passage); the high fees they demand for mandatory piloting are probably part of the reason.
- Local navigation for general cargo is already expanding and will probably keep doing so.
- Natural resources exploitation (oil and gas, metals, minerals) is likely to recover in a matter of a few years in the Arctic, sustaining the continued development of traffic stopping at local ports. Although this type of traffic will be submitted to port country regulations, unlike transit traffic it will also be potentially more polluting as it will carry concentrated ores or hydrocarbons.
- As for transit traffic, media reports claiming the Northwest Passage is on the verge of becoming a super seaway are farfetched. Bulk shipping is more likely to be interested than container shipping in testing the profitability of Arctic transit routes; as for local mining traffic, this kind of shipping represents a greater hazard as its cargo is potentially more polluting.
- The threat represented by developing shipping in the Arctic can therefore be described as follows :
    - Traffic is unlikely to be heavy: the Arctic will not be another Panama.
    - Traffic will, however, be boosted by either bulk transit or, more probably, by mineral and oil exploitation: potentially very polluting cargos.
    - Control and regulation of shipping in the Arctic, therefore, remain necessary in order to reduce pollution risk.