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US NATIONAL SECURITY AND ENVIRONMENTAL CHANGE IN THE ARCTIC

by

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Biography

The author is a pilot in the Swedish Air Force since 1990. He is a graduate from the Swedish Defense College; Staff Course and Senior Staff Course. Lt Col Helmrich has served as Commander of a GRIPEN Squadron and as Wing Commander Flying. In 2008 he commanded the Swedish RED FLAG Detachment.

Table of Contents

Introduction

Historically, dramatic changes in strategic geography have had a big impact on international relations. This can be illustrated by the discovery of America and the building of the Panama Canal and the Suez Canal. Today, the warming climate is changing the strategic geography in the Arctic. The ice coverage is decreasing, which makes shipping possible and increases the possibility to extract natural resources. Hence, the strategic importance of the Arctic is increasing.[1] This essay discusses the strategic impact of environmental change in the Arctic. The purpose is to explore how this change affects US National Security**,** and to suggest a future US policy in the region.

The existing academic analyses concerning US climate policy and Arctic policy generally proposes increased international cooperation. However, the existing international framework for the Arctic is disputed and is not ratified by the United States. Moreover, the actions of countries in the Arctic suggest, contrary to their stated policies, a desire to unilaterally maximize their own economic gain. The United States does not have a particularly developed Arctic policy. This essay suggests that the United States first ratify the United Nations Convention of the Law of the Sea. Then it needs to negotiate, bilaterally, agreements regarding the extent of the Arctic countries Exclusive Economic Zones (EEZs). To be successful, these negotiations should be broadened to include other areas of policy. The suggested policy does not seek to maximize the US EEZ; rather the objective is to reach a peaceful agreement with a positive effect on the world economy, while at the same time strengthening US strategic leadership.

[1] In this essay, I define the Arctic according to the Arctic Council, as illustrated in Figure 1, Annex 1. The Arctic countries include: Canada, Iceland, Denmark/Greenland/Faroe Islands, Finland, Norway, Russia, Sweden and the United States.

The essay starts with a brief summary of the environmental change in the Arctic and how that affects the strategic situation. Thereafter, a synopsis of academic recommendations concerning US policy is presented. This section is followed by an analysis of the current situation in the Arctic; pertaining to the status of international cooperation and how involved countries have acted. The fourth part covers US policy; what it is now and what should it be in the future.

The Arctic is Changing

Climate change in the Arctic is fundamentally altering the region's strategic importance. Increased accessibility, due to decreased ice coverage, leads to new possibilities of shipping and extraction of natural resources. For some time now, the debate about whether the climate is changing has been decided. Currently, the debate concerns its implications. Among the implications are those that affect international security. This is evident from President Obama's speech at the United Nations General Assembly on 23 September 2009:

> The danger posed by climate change cannot be denied. Our responsibility to meet it must not be deferred. If we continue down our current course, every member of this Assembly will see irreversible changes within their borders. Our efforts to end conflicts will be eclipsed by wars over refugees and resources.[2]

An important actor concerning climate change is the Intergovernmental Panel on Climate Change (IPCC). It was established by the United Nations in 1989, with the purpose of conducting an unbiased review of scientific evidence concerning climate change. The IPCC was

[2] President Barack Obama (Speech, United Nations General Assembly, New York, NY, 23 September 2009), http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-to-the-United-Nations-General-Assembly/, (accessed 28 September 2009).

honored with the 2007 Nobel Peace Prize. According to the IPCC, the Polar regions are the areas where climate change will be most abrupt and be experienced earliest.[3] In fact, it is already occurring. The Arctic glaciers and the Greenland ice sheet are melting.[4] Figure 2 in annex 1 illustrates current (2002) and projected ice extent in the Arctic. According to the IPCC, by 2050 the Northern Sea Route will have conditions that allow for navigation of ice-strengthened cargo ships 125 days/year.[5] The Northwest Passage, which was ice free for the first time in 2007, may shorten the journey between Europe and Asia by 2,500 miles. These two sea routes are illustrated in figure 2, annex 1. In the past 20 years, the ice-coverage of the Arctic has decreased by an area equal to one third of the continental United States.[6]

The decreasing ice-coverage does not only affect shipping routes. The United States Geological Survey (USGS) has made an assessment of undiscovered oil and gas resources in the Arctic. The conclusion is that the region is the Earth's largest remaining unexplored area for these resources. It is estimated that undiscovered oil and gas resources amount to 90 billion barrels of oil, 1,669 trillion cubic feet of natural gas and 44 billion barrels of gas liquids.[7] Compared to the total volume of estimated undiscovered energy resources, it equals 13 % of the

[3] M. L. Parry, O. F. Canziani, P. J. Palutikof, van der Linden, C. E. Hanson, *IPCC Fourth Assessment Report (AR4), Climate Change 2007: Impacts, Adaptation and Vulnerability* (Cambridge, UK: Cambridge University Press, 2007), 106, http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg2_report_impacts_adaptation_and_vulnerability.htm, (accessed 24 September 2009).
[4] Ibid., 656.
[5] Ibid., 676.
[6] Gunitskiy Vsevolod, *On thin Ice: Water rights and resource disputes in the Arctic Ocean* (Journal of International Affairs; Spring/Summer2008, Vol. 61 Issue 2), http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=32110404&site=ehost-live, (accessed 26 October 2009).
[7] Peter H. Stauffer, editor, *Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle* (Menlo Park, CA: US Geological Survey, 2008), 1 ff, http://pubs.usgs.gov/fs/2008/3049, (accessed 28 September 2009).

undiscovered oil and 30 % of the undiscovered natural gas.[8]

Climate change is affecting the Arctic and shrinking the extent of the ice cap. The result is easier access to natural resources, as well as the possibility of new shorter sea routes. Hence, the strategic importance of the region is increasing. Additionally, the global consequences of climate change will include upward pressure on oil prices; caused by instability in oil producing regions.[9] This development further increases the importance of the region. There is a considerable amount of analyses done concerning possible US policy regarding climate change in general, as well as policy in the Arctic. The next section examines the broad trends of those analyses.

Existing academic recommendations concerning strategies in the Arctic

Numerous organizations study climate change and its implications on international security. There is a general agreement that challenges brought by climate change, due to its global nature, should result in increased international cooperation.[10] Even studies made at military academic institutions generally favor multinational cooperation.[11]

In 2007 the CNA Corporation performed a study named *National Security and the threat of Climate Change*. Main threats to international stability are perceived as increasing difficulties for failing states, mass-migration and conflicts concerning resources. Climate change will

[8] Colie Zachary, *Rush to Arctic as warming opens oil deposits* (San Francisco, CA: The San Francisco Chronicle, August 12, 2008), http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/08/12/MN5R1290QE.DTL, (accessed 28 September 2009).
[9] Kurt M. Campbell, Leon Fuerth, Jay Gulledge, Alexander T.J. Lennon, J.R. McNeill, Derek Mix, Peter Ogden, John Podesta, Julianne Smith, Richard Weitz, James R. Woolsey, *The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change* (Washington, DC: Center for a New American Security, November 2007), 65, http://handle.dtic.mil/100.2/ADA473826, (accessed 28 September 2009).
[10] See, as an example, Christiane Callsen, *Climate Change and Security Policy* (Zurich, Switzerland: Center for Security Studies, 2007), 3.
[11] See, as an example, Dr Douglas V. Johnsson II, *Global Climate Change: National Security Implications* (Carlisle, PA: Army War College, Strategic Studies Institute, 2007), 2.

reinforce these threats.[12] The study recommends that the United States integrate the consequences of climate change in the *National Defense Strategy*, make a stronger commitment to stabilize climate change, commit to a global partnership to assist less developed nations, improve energy (fuel) efficiency in its combat forces and assess the impact on US military installations globally.[13] The study argues that the ongoing climate change is most significant in the Arctic. The decreasing amount of ice could bring more competition for resources as well as more commercial and military activity.[14] The CNA study recognizes that projected climate change is a serious threat to US national security. It states that more international cooperation is needed to address the challenge.[15]

The Center for a New American Security (CNAS) performed an in-depth analysis of the implications climate change may have on national security. The analysis argues that climate change will aggravate existing international tensions.[16] It also states that left unattended, the effects of climate change may come to represent the greatest challenge to US national security.[17] Three different scenarios are studied; expected-, severe- and catastrophic climate change.[18] The study concludes by presenting ten security implications due to climate change. They range from north-south tensions, migration challenges, resource conflicts, challenges to global governance, China's role and the unpredictability in balance of power shifts.[19] The policy recommendations for the United States are very vague. CNAS argues for international cooperation, especially

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[12] David M. Jr. Catarious, Ronald Filadelfo, Henry Gaffney, Sean Maybee, Thomas Morehouse, *National Security and the threat of Climate Change* (Alexandria, VA: The CNA Corporation, 2007), 13ff, http://securityandclimate.cna.org/report/National%20Security%20and%20the%20Threat%20of%, (accessed 28 September 2009).
[13] Catarious, Filadelfo, Gaffney, Maybee and Morehouse, *National Security and the threat of Climate Change,* 7f.
[14] Ibid., 38.
[15] Ibid., 44f.
[16] Campbell, Fuerth, Gulledge, Lennon, McNeill, Mix, Ogden, Podesta, Smith, Weitz and Woolsey, *The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change*, 8.
[17] Ibid., 10.
[18] Ibid., 38f.
[19] Ibid., 105ff.

between the United States, China and Europe; and stresses the importance of US leadership.[20] Concerning the Arctic, the report states that for the first time in modern times, the Northwest Passage has become navigable and that the decrease in the Arctic icecap is likely to continue.[21]

The Carnegie Endowment for International Peace, in its report *The Arctic Climate Change and Security Policy Conference*, stresses that the implications for US security interests as a result of climate change in the Arctic are profound. Its advice to the United States is to ratify the United Nations Convention of the Law of the Sea, promote a stronger role for the Arctic Council and support Arctic sub-regional forums. The key security issue in the Arctic is declared to be environmental security. The Carnegie Endowment for International Peace concludes that there are no significant geopolitical fault lines and no imminent reasons to expect wars because of natural resources.[22]

Existing academic analyses are generally favorable to increased international cooperation. How to handle increased competition of resources is not addressed, other than stating the need for increased international cooperation. There is a common academic appreciation of the challenge but, when studying the Arctic; it is obvious that the foundation for international cooperation is fragile and that the main actors are not acting in accordance with the recommendations.

Recent strategic development in the Arctic

[20] Ibid., 99.
[21] Campbell, Fuerth, Gulledge, Lennon, McNeill, Mix, Ogden, Podesta, Smith, Weitz and Woolsey, *The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change*, 5, 47.
[22] Kenneth S. Yalowitz, James F. Collins, Ross A. Virginia, *The Arctic Climate Change and Security Policy Conference – Final report and findings* (Hanover, NH: Dickey Center for International Understanding, Carnegie Endowment for International Peace and University of the Arctic Institute for Applied Circumpolar Policy, December 2008), 1f, 17, http://www.carnegieendowment.org/files/arctic_climate_change.pdf, (accessed 24 September 2009).

The actors in the Arctic consist of international agreements/institutions and states. The actors discussed are: The United Nations Convention of the Law of the Sea (UNCLOS), the Arctic Council, the International Maritime Organization (IMO), the Seabed Arms Control Treaty and the Arctic countries. Due to the brevity of this essay only the Arctic countries of Russia, Canada, Denmark, Norway and the United States are analyzed. Based upon tradition and geography, I deem these countries as most important. The United States is discussed in a separate section.

International agreements/institutions

UNCLOS was established 10 December 1982, a result of 14 years of work and involving more than 150 countries. It entered into force on 16 November 1994. UNCLOS establishes rules concerning use of the oceans and extraction of its resources, as well as serving as a legal framework for dispute-resolution. UNCLOS defines a state's Exclusive Economic Zone (EEZ), in which it has the sovereign right to extract natural resources, as an area within 200 nautical miles of its baseline.[23] This sovereign right may extend to 350 nm, if the state's continental shelf extends beyond the 200 nm limit. Recommendations concerning the extent of different state's continental shelves are made by the Commission on the Limits of the Continental Shelf (CLCS), established under the convention. To support a claim concerning its continental shelf, each nation is obliged to submit scientific evidence to the commission. Disputes regarding the right to resources can be submitted to the International Tribunal for the Law of the Sea, also established under the convention. Of the Arctic countries, the United States is the only one that has not

[23] A nation's baseline is determined by UNCLOS. Normally, it is the low-water line along the coast.

ratified the UNCLOS.[24] Several countries, though, have declared that they do not recognize UNCLOS' right of binding decisions, or have declared other exceptions. Russia, as an example, does not accept UNCLOS' procedures for binding decisions or dispute-resolution concerning the exercise of sovereign rights. Canada reserves the right to take any position on any declaration by UNCLSOS that it deems appropriate. Both Norway and Denmark have made reservations concerning dispute-resolution.[25] Although UNCLOS is the critical framework in the Arctic, other relevant treaties and organizations exist.

The main purpose of the Arctic Council is to maintain peace and stability in the Arctic. The council was established in 1996 and today all of the Arctic countries are members. Besides nations, several Arctic organizations of indigenous populations are included as permanent participants in the council. The Arctic Council does not handle matters associated with military security. Instead, it contributes to peace and stability by addressing issues such as living conditions, sustainable development and environmental protection. However, according to its chairman Lars Møller, the Arctic Council together with UNCLOS can be viewed as the main framework within which security related issues can be dealt with.[26]

The International Maritime Organization, founded in 1958, is a UN organization concerned with maritime safety and cooperation. It is based in Great Britain and has 169 member nations. The safety issues encompass shipping as well as environmental safety.[27]

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[24] United Nations, *United Nations Convention on the Law of the Sea* (the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations, New York, NY), http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm, (accessed 13 October 2009).
[25] United Nations, *United Nations Convention on the Law of the Sea* (the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations, New York, NY), http://www.un.org/Depts/los/convention_agreements/convention_declarations.htm, (accessed 13 October 2009).
[26] The Arctic Council, *Declaration of the Establishment of the Arctic Council*, http://arctic-council.org/article/about, (accessed 19 October 2009).
[27] United Nations, *Introduction to IMO*, http://www.imo.org/, (accessed 19 October 2009).

The Seabed Arms Control Treaty of 1971 is a multinational agreement between 84 countries banning the placement of weapons of mass destruction on the ocean floor, beyond the 12-mile territorial zone.[28]

With the exception of the Seabed Arms Control Treaty, the international framework in the Arctic does not consider strictly security related issues. This is different from the Antarctic. The Antarctic treaty was signed in 1959 and, amongst other things, states that Antarctica is to be used strictly for peaceful purposes. It also allows for inspections of other nations bases/stations on the continent. However, there are still unresolved overlapping territorial claims even in Antarctica.[29] There is an important difference between the Arctic, as well as the Antarctic, and every other area on land or above the continental shelf. There is no history of territorial sovereignty; hence there exists no customary law of economic rights. At the same time, because several countries have declared they do not recognize UNCLOS right of binding decisions, the significance of the existing international framework is unclear.

State behavior

Since the end of the Cold War the Arctic has been somewhat disconnected from power politics. There are, however, certain indications that this is about to change.[30] Oil companies from several nations are extending their offshore fields further north. The possibility of increased shipping has led to disputes between Canada and Denmark about Hans Island, located at the entrance of the Northwest Passage. Both countries, and Russia, have sent warships to the region

[28] Atomic Archive, *Seabed Treaty (1971)*, http://www.atomicarchive.com/Treaties/Treaty7.shtml, (accessed 19 October 2009).
[29] Antarctic Treaty Secretariat, *The Antarctic Treaty*, http://www.ats.aq/e/ats_treaty.htm (accessed 19 October 2009).
[30] Yalowitz, Collins and Virginia, *The Arctic Climate Change and Security Policy Conference – Final report and findings*, 15.

to emphasize their interests.[31] Additionally, several countries have made overlapping claims to parts of the Arctic.[32]

In August 2007 a Russian adventurer placed a Russian flag on the ocean floor; 4,300 meters below the North Pole. By doing so he claimed 1.2 million km^2 of the Arctic for Russia.[33] Russia's first claim to UNCLOS in this respect was made in 2001. It argued that Russia's continental shelf, and hence it's EEZ, extended far beyond 200 nautical miles. Due to lack of evidence, the claim was turned down. However, both the expedition of 2007 and others intend to document new evidence to support Russia's claim.[34] Russia's security interests are in part military, since its nuclear submarine fleet is based at the Kola peninsula.[35] Although the Russian navy has downsized, the Northern Fleet is still vital in Russia's military strategy. It operates Russia's single aircraft carrier as well as the nuclear powered missile submarines that are the backbone of Russia's strategic naval nuclear force.[36]

A new Russian strategy for the Arctic was signed 18 September 2008 by President Medvedev. Russia aims at maintaining its leading position as an Arctic power and over time to transform the Arctic into its main resource base. This is a natural consequence of the Russian argument, that a large part of the Arctic seabed is an extension of the Siberian continental shelf. Russia is economically dependent on exports of oil, gas and metals. The area's significance to Russia is apparent by the assessment that the amount of oil estimated to exist in the Arctic equals

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[31] Beth Duff-Brown, Phil Couvrette, Mike Eckel, Dan Joling, Karl Ritter, *Technology, climate change spark race to claim Arctic resources* (Associated Press, 24 March 2007), http://www.usatoday.com/money/world/2007-03-24-arcticbonanza_N.htm, (accessed 19 October 2009).
[32] Vsevolod, *On thin Ice: Water rights and resource disputes in the Arctic Ocean*.
[33] Campbell, Fuerth, Gulledge, Lennon, McNeill, Mix, Ogden, Podesta, Smith, Weitz and Woolsey, *The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change*, 5.
[34] Forbes, *Russia's Arctic Plays Concerns Region*, 12 August 2009, http://www.forbes.com/2009/08/11/russia-energy-climate-change-business-energy-oxford.html, (accessed 19 October 2009).
[35] Yalowitz, Collins and Virginia, *The Arctic Climate Change and Security Policy Conference – Final report and findings*, 15.
[36] Ilja Kramnik, *Northern Fleet protecting Russian Arctic* (Rianovosti, 2 June 2009), http://en.rian.ru/analysis/20090602/155147701.html, (accessed 28 September 2009).

Russia's total known reserves.[37] The definition of Russia's continental shelf therefore becomes an important issue. Russia plans to develop military units capable of protecting its security interests in the region, amongst which are control of natural resources and increased control of shipping routes, the Northern Sea Route. Russia's strategy also states that competition about natural resources in the Arctic may result in military conflict.[38] However, Russian officials refer to the Arctic as a zone of peace.[39]

Canada can also be perceived as building up its military capabilities in the region. A key issue for Canada is whether the Northwest Passage is in Canadian or international waters. Canada has made vessel notification in the Northwest Passage mandatory.[40] It appears that Canada is focusing on the Arctic's military strategic importance. During the Cold War, the United States contributed the bulk of military forces while Canada minimized its military presence. After the Cold War, Canada further reduced its military activity in the Arctic. Then, in 1999 Canada created *The Arctic Security Interdepartmental Working Group* to coordinate the nation's security policy in the Arctic. Canada has acknowledged that the region has large amounts of natural resources as well as a fragile ecosystem. Canada's recent *Arctic Capabilities Study* from 2000 is based on the assumption that the strategic situation in the Arctic is changing. The study made some recommendations to Canada's Department of National Defense. These recommendations include: increased inter-departmental cooperation, increased Ranger capabilities, exercises by the Canadian Forces, to include the Arctic dimension in future

[37] Dmitry Solovyov, Guy Faulconbridge, *Russia to boost Arctic troops to defend resources* (Reuters, edt Andrew Dobbie, 27 March 2009), http://www.reuters.com/article/environmentNews/idUSTRE52P5NS20090327, (accessed 19 October 2009).
[38] Katarzyna Zysk, *Russia's National Security Strategy to 2020* (Institutt for forsvarsstudier: Norway, 15 June 2009), http://www.geopoliticsnorth.org/index.php?option=com_content&view=article&id=2%3Arussia-norway-and-the-high-north-past-present-future&catid=3%3Anewsflash&Itemid=1&limitstart=2, (accessed 26 October 2009).
[39] Forbes, *Russia's Arctic Plays Concerns Region.*
[40] Yalowitz, Collins and Virginia, *The Arctic Climate Change and Security Policy Conference – Final report and findings*, 15f.

Canadian Forces planning and to improve surveillance of the region. Then, in 2002 the Canadian Forces conducted their first joint exercise in the Arctic in over 20 years, an exercise that has been followed by additional ones.[41]

In 2005 Canada issued *Canada's International Policy Statement*. It elaborates the need for Canada to monitor and control events in its northern region and stresses the increasing demands on sovereignty, as activities in the Arctic increase. As a consequence, Canadian forces need to increase their presence and capabilities in the region.[42] This issue is addressed in Canada's current defense strategy, *Canada First.* It includes modernization of its military forces; arctic patrol ships, destroyers and frigates and maritime patrol aircraft, all with increased Arctic climate capabilities. Improved surveillance capability of the region is also being studied.[43] The defense strategy should be considered together with Canada's *Northern Strategy.* This strategy was released in the summer of 2009 by the Minister of Foreign Affairs, Mr. Lawrence Cannon. The strategy acknowledges the need for international cooperation, but at the same time it states that the Arctic is a priority for Canada and that it intends to be the international leader in the region. The strategy refers to a commitment to protect and patrol the region. A Canadian goal is, by the use of UNCLOS, to maximize the recognition of the extent of Canada's continental shelf beyond 200 nautical miles.[44] An example of Canadian resolve is the previously mentioned dispute with Denmark about Hans Island. In 2005 Canada's Defence Minister visited the small

[41] Rob Huebert, *Renaissance in Canadian Arctic Security?* (Canadian Military Journal, 14 July 2008), http://www.journal.dnd.ca/vo6/no4/north-nord-eng.asp, (accessed 24 September 2009).
[42] Ibid.
[43] National Defence Headquarters, *Rebuilding the Canadian Forces* (Department of National Defence, 3 April 2009), http://www.forces.gc.ca/site/focus/first-premier/defstra/rebuild-rebatir-eng.asp, (accessed 26 October 2009).
[44] Lawrence Cannon (Speech, Gatineau, Quebec, Department of Foreign Affairs and International Trade Canada, 26 July 2009), http://www.international.gc.ca/media/aff/speeches-discours/2009/387436.aspx?lang=en, (accessed 26 October 2009).

uninhabited island, where Canadian troops erected a Canadian flag. Hans Island is claimed by both countries.[45]

Both Denmark and Norway acknowledge the need for international cooperation in the Arctic. However, when studying their actions in the area, both countries are concerned with securing access to natural resources. Denmark's position is unique, due to Greenland. Following the Russian expedition of 2007, Denmark launched its own expedition with the objective to establish the extent of Greenland's continental shelf.[46] Turning to Norway, it's *Strategy of the High North* of 2007 states that the Arctic is Norway's most strategically important area and that it will intensify its efforts to exercise Norwegian sovereignty. The area's importance is due to resources; fishing and energy. A focal point in the strategy is the islands of Svalbard and Spitsbergen. Further, the strategy discusses Norway's claims concerning the extent of its continental shelf. Norway appears to have identified Russia as its main counterpart in the region. The strategy praises cooperation with Russia, while it also expresses concerns over Russia's development. In its ability to exercise sovereignty and authority, the presence of military combat forces is a vital part of Norway's strategy. However, the primary tasks for the armed forces in this region are surveillance and intelligence gathering, which are mainly done by Coast Guard assets and Maritime Patrol Aircraft.[47] The status of the Svalbard archipelago is disputed. Norway claims exclusive rights to its resources through the Svalbard Treaty of 1920. Other states have made reservations. The situation is complicated with the Svalbard and the Spitsbergen Treaties

[45] Economist, *Charging round the block* (Economist; 8/20/2005, Vol. 376 Issue 8440), http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=17989986&site=ehost-live, (accessed 26 October 2009).
[46] Vsevolod, *On thin Ice: Water rights and resource disputes in the Arctic Ocean.*
[47] Norwegian Government, *The Norwegian Government's High North Strategy* (Norway: Ministry of Foreign Affairs, 1 December 2006), http://www.regjeringen.no/upload/UD/Vedlegg/strategien.pdf , (accessed 2 November 2009).

as well as UNCLOS. Occasionally, it has led to Norwegian seizure of other countries' fishing vessels.[48]

Territorial claims put forward to UNCLOS contain both unclaimed areas as well as overlapping claims in the region.[49] The most interesting area is an almost circular area of 460,800 square miles, north of respective Arctic country's 200 nm zone.[50] Below this area runs the Lomonosov Ridge.[51] It expands 1,700 km from the continental shelf of North America, via the North Pole, to the continental shelf of the New Siberian Islands.[52] Hence, to establish the exact origin of the Lomonosov Ridge and the extension of the continental shelf of Canada, Russia, Norway and Greenland becomes very important.[53] Since the CLCS only has a mandate to review geological evidence and make recommendations it may cause a situation of counter claims and appeals.[54]

The lack of a security related treaty in the Arctic is in stark contrast to the amount of security related activities. All concerned countries stress the importance of international cooperation, but their actions imply that they do not trust the ability of international institutions/agreements to settle existing disputes. The disputes concern rights to natural resources, control of shipping routes and to some extent which is the leading country in the region. All nations have showed resolve in protecting their interests.

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[48] Torbjørn Pedersen, *The Dynamics of Svalbard Diplomacy* (Diplomacy & Statecraft, June 2008, Vol. 19 Issue 2), 1, 2, 18, http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=32708567&site=ehost-live, (accessed 2 November 2009).
[49] Yalowitz, Collins and Virginia, *The Arctic Climate Change and Security Policy Conference – Final report and findings*, 16.
[50] Vsevolod, *On thin Ice: Water rights and resource disputes in the Arctic Ocean.*
[51] The extent of the Lomonosov Ridge is illustrated in Figure 3 in Annex 1.
[52] International Bathymetric Chart of the Arctic Ocean, http://www.ngdc.noaa.gov/mgg/bathymetry/arctic/ibcao_gebco_comp.html, (accessed 2 November 2009).
[53] Zachary, *Rush to Arctic as warming opens oil deposits.*
[54] Vsevolod, *On thin Ice: Water rights and resource disputes in the Arctic Ocean.*

So in a region that is changing and increasing in importance, there are conflicting interests, demonstrated national resolve, little historical guidance and an impotent international framework. The framework that does exist is being used to promote national interests. Furthermore, the discussion above suggests that unfavorable recommendations by UNCLOS and CLCS will not be easily accepted. With this conclusion in mind, the next section analyzes US Arctic policy.

US policy concerning the Arctic

There are not many official documents concerning US Arctic Policy. Neither the 2002 nor the 2006 National Security Strategy, or the 2008 National Defense Strategy contain any specific US policy in the region. The White House website concerning foreign policy discusses a number of issues and identifies climate change as one of several distinct challenges, but the webpage does not include a specific Arctic policy.[55] There exists an old Presidential Decision Directive from 1994 (PDD-26), covering US Arctic and Antarctic policy. Then, in January last year the White House issued a new Presidential Directive (PD-66) concerning US Arctic strategy. The background was, amongst other things, the effects of climate change and the recognition of the region's richness of resources. According to the Presidential Directive, US objectives in the Arctic can, somewhat simplified, be summarized as; intense international cooperation concerning environmental issues, freedom of the seas (the Northwest Passage and the Northern Sea Route) and to maximize the extension of US continental shelf. To attain these objectives, ratification of UNCLOS as well as a significant military presence is deemed vital.

[55] President Barack Obama, *Foreign Policy* (The White House: Washington D. C.), http://www.whitehouse.gov/issues/foreign-policy, (accessed 11 November 2009).

The PD-66 supersedes the PDD-26 concerning US Arctic policy, but not concerning the Antarctic policy.[56]

In 2007 the Senate Foreign Relations Committee sent the UNCLOS treaty to the full Senate for ratification, where it needs a 2/3 majority for ratification. It has yet to be ratified, though. The main objections in the Senate are the short timeframe available between ratification and when territorial claims need to be done, an unclear dispute-resolution process, infringements on US sovereignty, and possible limitations on US military activity.[57]

Concerning US activities in the Arctic, not much can be tied to an Arctic policy. However, since 2006, the United States no longer has a permanent military presence on Iceland.[58] This may validate a continuing shift in military priority, from the Cold War fault lines towards focusing on the Global War on Terror and the CENTRAL COMMAND area.

Suggestions for US policy

In contrast to other countries, the United States does not have a highly developed Arctic policy and is not a member of the most important international institution concerning the Arctic, the UNCLOS. The Presidential Directive that does exist is a legacy from former President George W. Bush.

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[56] George W. Bush, *National Security Presidential Directive – 66* (The White House: Washington D. C., 9 January 2009), http://georgewbush-whitehouse.archives.gov/news/releases/2009/01/20090112-3.html, (accessed 2 November 2009).

[57] Kevin Drawbaugh, *U.S. Senate panel backs Law of the Sea treaty* (Reuters, 31 October 2007), http://www.reuters.com/article/idUSN31335584, (accessed 11 January 2010), Clifford Krauss, Steven Lee Myers, Andrew C. Revkin, Simon Romero, *As Polar Ice Turns to Water, Dreams of Treasure Abound* (New York Times, 10 October 2005), http://www.nytimes.com/2005/10/10/science/10arctic.html?_r=2&pagewanted=print, (accessed 11 January 2010).

[58] Valur Ingimundarson, *Iceland's post-american security policy, Russian geopolitics and the Arctic question* (The RUSI Journal, August 2009, Vol. 154, Issue Nr 4), 1, http://search.ebscohost.com/login.aspx?direct=true&db=eoah&AN=19591460&site=ehost-live, (accessed 2 November 2009).

When discussing what the Arctic policy of the Obama administration should be, US overall interests and the larger context for the policy must be considered. Although the new administration yet has to publish a National Security Strategy, US overall interests can be described as a combination of long and short term objectives. The long term objective concerns the United States role in the world and how the country is perceived in the international community. It is obvious that President Obama strives for a change in strategic leadership. The emphasis when interacting with other nations is on multilateral cooperation. The aspired leadership appears to be more persuasive than coercive and more inclusive than exclusive.[59] Therefore, US Arctic policy must be constrained to actions that have legitimacy in the international community. At the same time, the security of the United States and its citizens is one of the Presidents main responsibilities and cannot be compromised.

The short term objective encompasses avoiding military conflict as well as denying any (other) country from dominating the Arctic. From an economic perspective, US interests can be perceived as to maximize its access to natural resources and to secure the access of new shipping routes. But, solving the disputed issues may be more important, and even more profitable, than maximizing the extent of US continental shelf. To ensure that available resources and shortened shipping routes benefit the world economy may be the true economic interest.

As well as considering US objectives, US Arctic policy must address recent and likely future developments in the region. A decrease in the Arctic icecap will make new sea routes available and permit increased extraction of natural resources. Together with probable increased instability caused by climate change in the Middle East, the strategic significance of the Arctic will increase. It will result in increased commercial as well as military activity in the region. The

[59] This is evident by, e g, President Obama's recent speeches in Cairo and the UN and the White House website concerning foreign policy.

key strategic challenge is to settle the dispute concerning the EEZs, and to a lesser degree the control over new shipping routes. It may be tempting to pursue a policy similar to other Arctic countries; to ratify the UNCLOS and then file US territorial claims. However, that would not bring the issue closer to a solution. Another possibility may be an international conference to reach an agreement concerning the continental shelf. Due to conflicting interests, this approach is unlikely to succeed. But, it is possible to formulate a policy that creates synergy; by combining the objective of increasing the credibility of US strategic leadership with securing economic gain and a peaceful development in the Arctic. Actually, this opportunity exists because of the conflicting national interests and the uncertain significance of the international framework. It combines multi- and bilateral initiatives within the existing international framework.

My suggestion for US Arctic policy encompasses broadening the issue to other areas and contains activities at several different levels. First, the foundation of the policy is UNCLOS; it needs to be ratified by Congress. To convince the Senate, President Obama needs to invest political will in the issue and needs to compromise in other areas. Next, it is highly unlikely that the concerned nations in the near future will be able to agree upon a solution about the continental shelf. Therefore, the United States Geological Survey should be tasked to make an overall, and objective, suggestion of the continental shelf issue. The suggestion is to be used as a starting point in bilateral negotiations with Russia, Canada, Denmark and Norway; in order to reach an agreement. The United States must add other issues to the discussions; issues that may differ depending on the counterpart. By introducing the issue of control of shipping routes as well as other economic and military/security instruments of national power to the discussion, compromises can be reached. Concerning Norway and Denmark, the United States could inject security and Foreign Military Sales issues in the discussion. The condition for purchase of the

Joint Strike Fighter is an example of such an issue. In negotiations with Russia; the strategy versus Iran, cooperation in the conflict against Islamic fundamentalist groups and NATO's missile defense system are possible issues to involve. As for Canada, control of the Northwest Passage and trade issues may be included. A final compromise can then be submitted, multilaterally, to UNCLOS and CLCS. Additionally, initiative to a security related treaty similar to the Antarctic treaty should be taken. From a military perspective the division of the Arctic between several Combatant Commanders is not preferable. Commander NORTHCOM should be responsible for the area of the Arctic that is located north of the Arctic countries 200 nm zone. Such a change will facilitate coordination of the national instruments of power. From the United States perspective the suggested policy will probably not maximize the extension of its continental shelf, as stated as a goal in PDD-66. However, it will strengthen US strategic leadership, have a positive effect on the world economy and promote a peaceful development in the Arctic region. Hence, the suggested policy accommodates both the long and short term objectives concerning US interests. If the policy is wisely introduced in a strategic communications context, its outcome may be further enhanced.

Conclusions

Historically, dramatic changes in strategic geography have had big impacts on international relations. The United States has frequently demonstrated its interests in the Panama Canal by military means. In 1956 the Suez Canal was the scene of armed conflict involving two of the great powers; Great Britain and France. Concerning resources, it is obvious that the discovery of America has affected great power politics ever since. I do not suggest that these

examples are perfect analogies. However, they do illustrate that important sea routes as well as disputed rights to natural resources can play an important part in international politics.

The Arctic has some very specific characteristics. Its main part is neither a continent nor an island; hence it cannot have and has no tradition of ordinary human settlement. It has a very inhospitable climate, and was until recently very difficult to access. The decreasing Arctic icecap will make new sea routes available and permit increased extraction of natural resources. Therefore, the strategic significance of the Arctic is increasing. The international framework that does exist is not sufficient. At the same time, several nations' actions imply a risk of increased tension concerning unresolved issues about the right to resources. The key strategic challenge for the United States is to settle the dispute concerning the EEZs, while at the same time protecting US overall interests. The suggested US policy enhances United States credibility as the world's strategic leader and favors a positive development of the world economy. Hence, it meets the nation's long and short term objectives.

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Annex 1

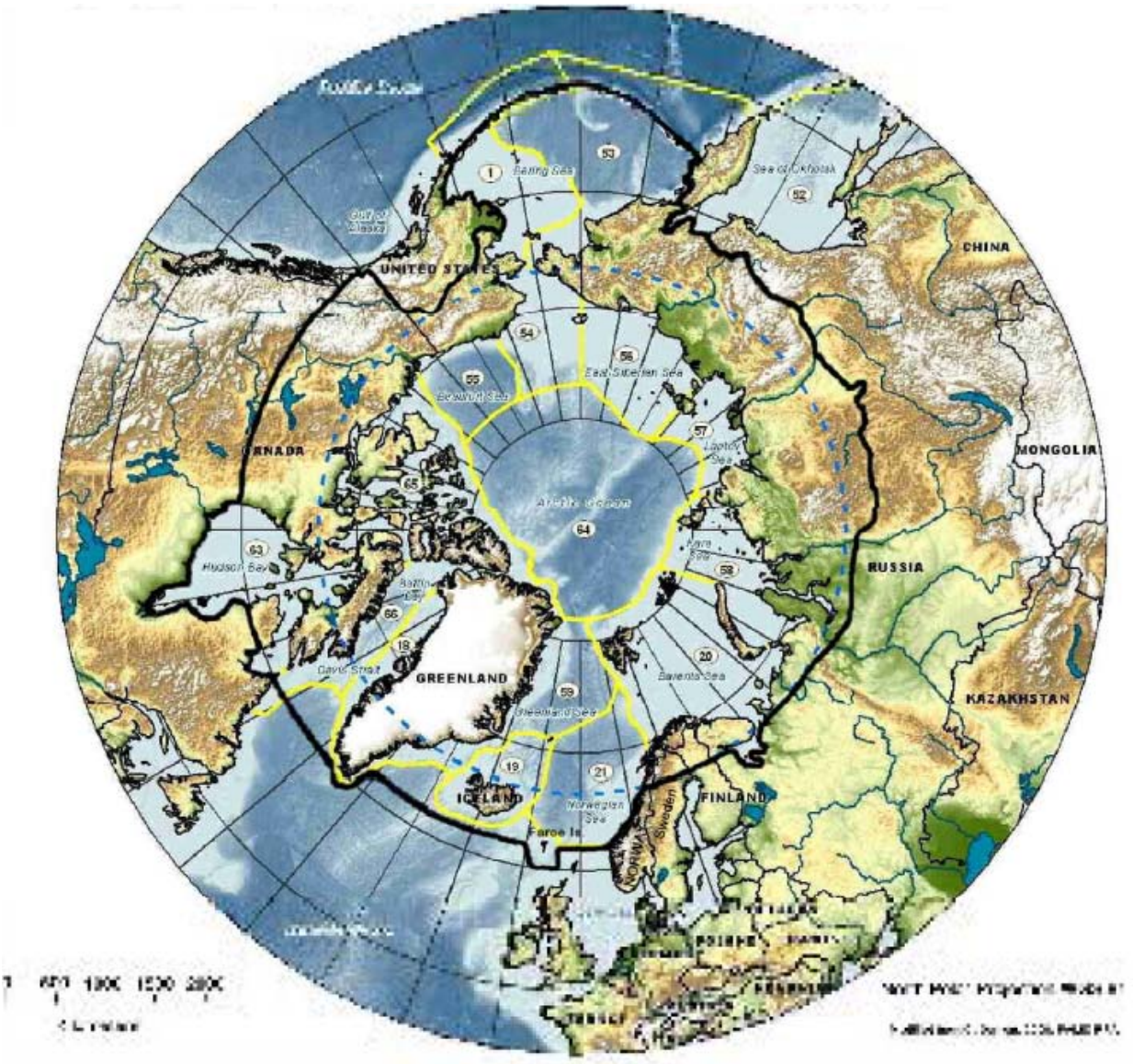

Figure 1.[60] Black line represents definition of the Arctic.

[60] Protection of the Arctic Marine Environment Working Group, *Arctic Offshore oil and gas guidelines* (Arctic Council, 29 April 2009), 5, http://arctic-council.org/filearchive/Arctic%20Offhsore%20Oil%20and%20Gas%20Guidelines%202009.pdf, (accessed 19 October 2009).

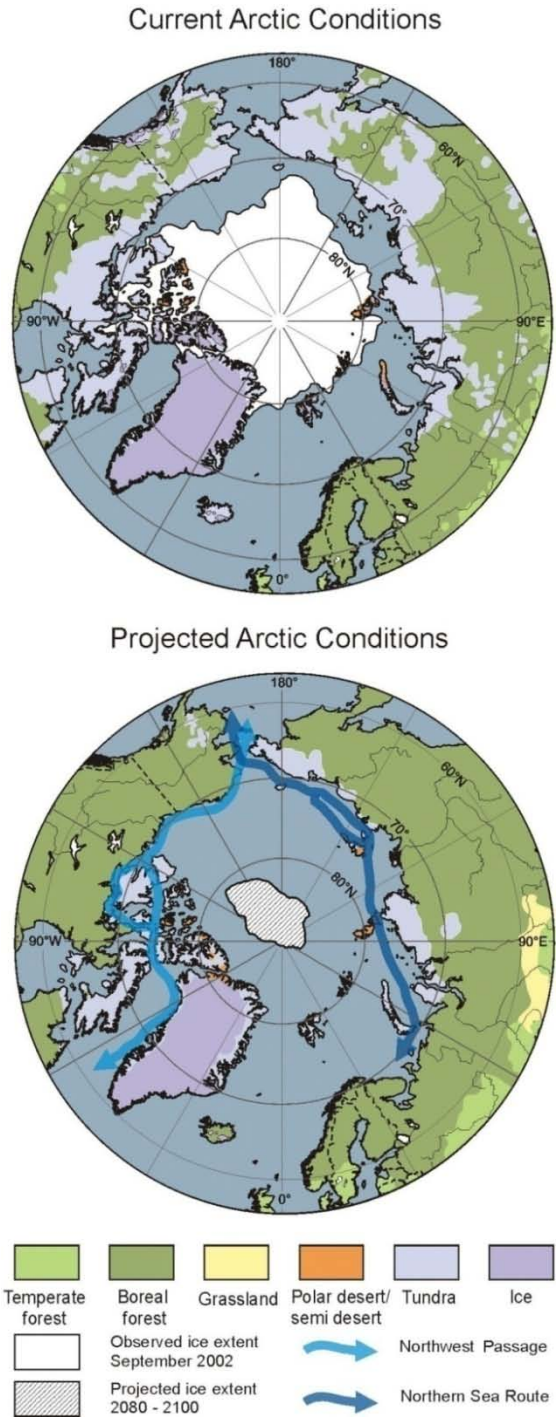

Figure 2.[61]

[61] Parry, Canziani, Palutikof, van der Linden and Hanson, *IPCC Fourth Assessment Report (AR4), Climate Change 2007: Impacts, Adaptation and Vulnerability* (Cambridge, UK: Cambridge University Press, 2007), 659.

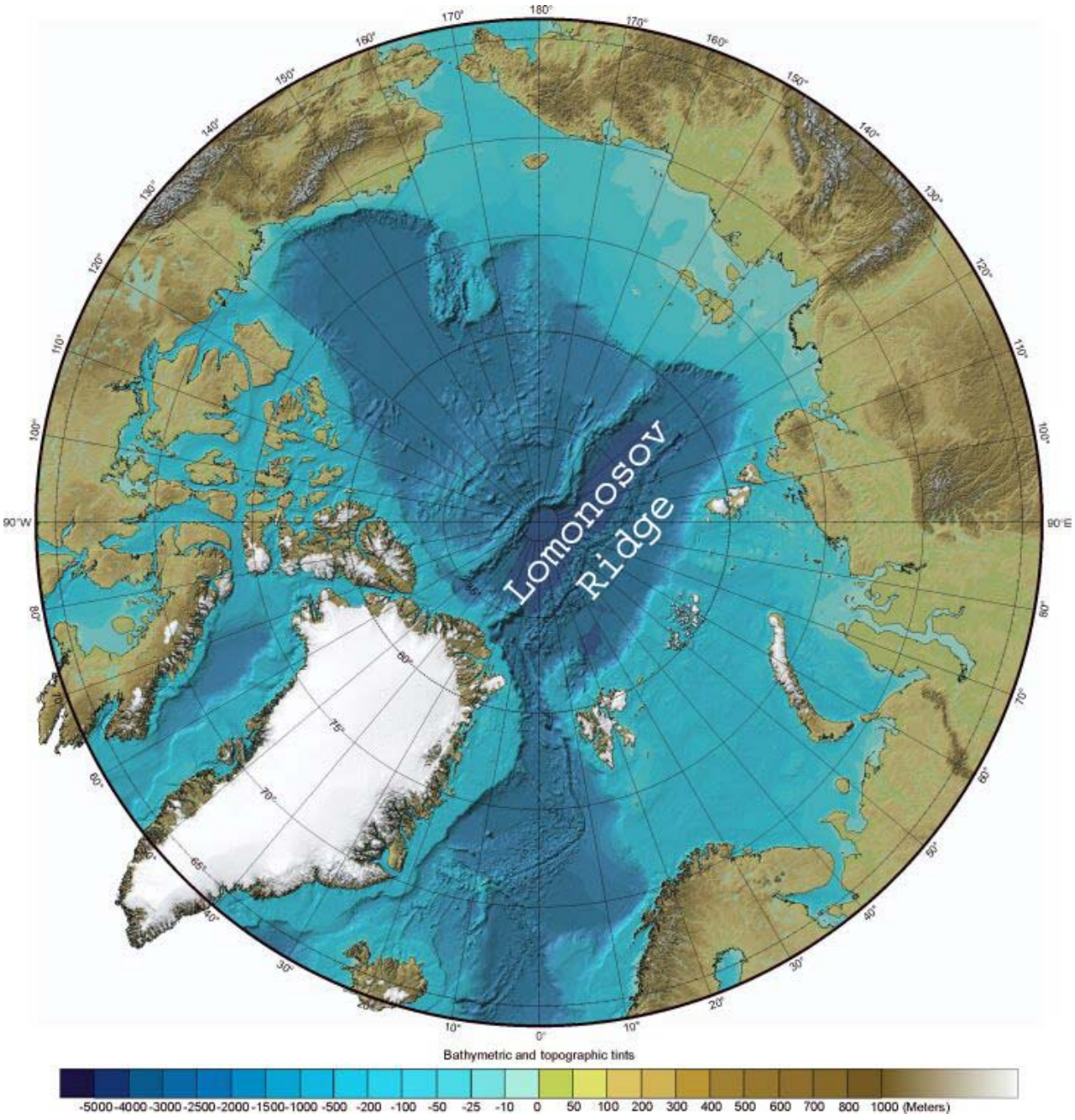

Figure 3.[62]

[62] Center for Marine Environmental Sciences (University of Bremen), http://www.marum.de/Binaries/Binary8172/Karte_Arktis.jpg, (accessed 28 January 2010).