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The Arctic and Geopolitics

David A. Welch

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Cover photo: The submarine USS *Annapolis* (SSN 760) rests in the Arctic Ocean after surfacing through three feet of ice during Ice Exercise 2009 on March 21, 2009. The two-week training exercise, which is used to test submarine operability and war-fighting capability in Arctic conditions, also involves the USS *Helena* (SSN 725), the University of Washington and personnel from the Navy Arctic Submarine Laboratory. US Department of Defense photo by Petty Officer First Class Tiffini M. Jones, US Navy.

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EXECUTIVE SUMMARY

Contrary to popular belief — and contrary to the views of many politicians and scholars — the Arctic is completely uninteresting geopolitically from a traditional national security perspective. It is somewhat more interesting geopolitically from various non-traditional security perspectives (for example, human security, cultural security, energy security, economic security and environmental security); but it is truly important only in the one respect that attracts the least attention and action from policy makers: namely, ecospheric security.

PRELUDE: WHAT IS THE ARCTIC, AND WHAT IS "GEOPOLITICS"?

The words "Arctic" and "geopolitics" are fixtures of the English language, although the former undoubtedly enjoys wider usage; "geopolitics" is a term that one is most likely to encounter either in academic social science or in media commentary on global affairs. Yet neither is particularly well defined. This is no coincidence. If you look up "Arctic" on Wikipedia, you will see that it has both natural science definitions and social/political definitions. Everyone agrees that the waters of the Arctic Ocean count, but the application of the label to southward land masses and peripheral minor seas and bays is inconsistent and occasionally contested. The contestation is often political — which is where geopolitics comes in.

The word "geopolitics" was originally coined in 1899 by a Swedish political scientist and rapidly developed into a subfield of its own (Dodds 2007). To some extent, it was a case of putting old wine in new bottles: statesmen, military thinkers, scholars and commentators had long been aware of the importance of geography in world politics. What many regard as the seminal work of geopolitics — Alfred Thayer Mahan's *The Influence of Sea Power Upon History* — had, in fact, been published almost a decade earlier (Mahan 1890). Nevertheless, the word gave the subject a quasi-scientific cachet that helped to establish "claims to intellectual legitimacy and policy relevance" (Dodds 2007, 26). The term was taken up with particular gusto by those whom we would identify today as "realists," preoccupied with the art and science of promoting national interest defined in terms of power by manoeuvring for territorial advantage. Primarily politically conservative, early geopolitical thinkers offered justifications for hard-nosed power politics, formal and informal empire, and the high levels of armament required to pursue them.[1] In recent years, however, the term has been embraced by scholars in a wide variety of disciplines, including those who work in a critical or postmodern vein, and whose politics are as likely to be post-colonial as early

1 In addition to Mahan, a particularly influential figure was Halford Mackinder (1904); see also Dodds and Sidaway (2004).

geopolitical thinkers' were pro-colonial (Dalby and Ó Tuathail 1998; Ó Tuathail, Dalby and Routledge 2006; Kelly 2006; Ciută and Klinke 2010).

Whatever the politics of geopolitics may be, practitioners all share a concern with relating space to politics. Politics is (or should be) about protecting things worth protecting, providing public goods and doing today what needs to be done to enable our children to have a better tomorrow. Not surprisingly, in the field of political science, geopolitics falls squarely in the subfield of international security studies. Differences between old-style and new-style geopolitics can be understood, to some extent, as differences between traditional and non-traditional understandings of security. And so a good place to begin a discussion of the Arctic and geopolitics is to identify what is at stake in the region, looking through both traditional and non-traditional security lenses.

Defining "the region," however — as I indicated at the outset — requires disambiguation. It will suffice for my purposes here simply to define the Arctic as that part of the Earth above the Arctic Circle — i.e., north of 66°33′44″. This has the advantage of including territory from all eight member states of the Arctic Council. This arbitrary delineation does not mean, of course, that the issues I discuss here are not of concern to other countries or to the people or territories of the Arctic Council members (that vast majority of both in every case)[2] that lie outside the region.

What *are* my purposes here? Quite simply, to show that, from a traditional security perspective, the Arctic is completely uninteresting geopolitically, and while it is interesting from a non-traditional security perspective, it is truly important only in the one respect that happens to attract the least attention and action from policy makers. Moreover, it is the one respect that forces us to look in the other direction. Security is not at stake in any meaningful sense *in* the Arctic, but is very much at stake *because* of it.

TRADITIONAL SECURITY

Early geopolitical thinkers were concerned almost entirely with the security of the state against military attack from another state. This understanding of security dominated the field of international relations right up until the end of the Cold War. During the Cold War, the Arctic had geopolitical value in this traditional sense as a result of the premium the superpowers placed on the early warning of transpolar strategic bomber or ballistic missile attack, which required building, manning, supplying and maintaining radar sites in harsh, remote northerly locations. Now that the Cold War is over, however — and in view of technological advances that have shifted the monitoring burden to space-based and unmanned sensors — the region has lost this particular "hard" security value. Arguably, even during the Cold War, the Arctic had relatively little real hard security value, owing to the fact that neither superpower harboured intentions of nuclear attack. The dangers of nuclear war were almost entirely a function of accident, inadvertence, misperception and unintended escalation — any of which would have resulted in massive casualties south of (not north of) the Arctic Circle, regardless of early warning capabilities.

The Arctic never was — and, for the foreseeable future never plausibly will be — a significant theatre of non-nuclear war. No matter which school of military thought one belongs to, it is impossible to imagine that significant military operations in the Arctic will ever be feasible or desirable. Climate, terrain, sea ice, remoteness from economic and population centres and lack of forward base infrastructure all make the Arctic inhospitable for military operations no matter whether one favours decisive engagement (as did Sun Tzu and Jomini), destruction of the enemy's "centre of gravity" (as did von Clausewitz) or an "indirect approach" to war through flanking and manoeuvre (à la Liddell Hart) (Sun Tzu 2009; Liddell Hart 1929; von Clausewitz 1989; Wood 2008; Swain 1990; Holmes 2007; Handel 1992). The most that can be said for the Arctic's traditional military value is that once in human history — during World War II — Arctic waters served an important logistical function. By means of convoys from Atlantic ports to Arkhangelsk and Murmansk, the Allies helped to keep the Soviet Union supplied in its fight against Hitler (Schofield 1977). It is difficult to imagine the conflict that would require Arctic transit routes in the twenty-first century; Europe and North America are members of a security community, and while the Northern Sea Route (NSR) might be useful for shipping supplies to combatants in East or Southeast Asia, it is implausible to imagine that it would play more than a marginal role given trans-Pacific alternatives.

The Arctic is an inhospitable military environment for exactly the same reasons that it is inhospitable for large-scale human habitation. The 10 largest cities in the Arctic have a combined population of fewer than 900,000 — roughly the same as that of Canada's capital city, Ottawa — and fully one-third of those live in Murmansk, which enjoys the odd status of being ice-free year round, thanks to the Gulf Stream (The World Geography 2011). In any case, there is little in the Arctic to fight over. There is but one territorial dispute (between Canada and Denmark over Hans Island, a 1.3 km^2 barren rock

2 The one partial exception is Denmark, whose territory, if one includes Greenland, is predominantly above the Arctic Circle, but whose population is almost entirely below it.

notable primarily as a source of binational mirth), and while there a few maritime jurisdiction disputes, there is no indication that any of them is more than a low-grade management issue.[3]

Despite all this, one occasionally encounters alarmist accounts of traditional security threats in the Arctic. These have an air of implausibility across the board, and often trade on mixing up very distinct concepts such as sovereignty and security.[4] They can be useful in bureaucratic political games, however; the Canadian Navy, for example, used the putative US and Russian submarine threats to Canada's Arctic sovereignty to help justify the purchase of four used Upholder class submarines from Britain in 1998, never explaining to the Canadian government, Parliament or people what exactly they intended to do with them if they encountered unwelcome foreign submarines in waters that Canada liked to think of as its own, nor explaining why they were buying diesel-electric submarines that were almost entirely unsuited to Arctic operations. The purchase has proven to be a complete debacle, and yet the "submarine threat" canard refuses to die (*The Economist* 2012; Huebert 2012).

NON-TRADITIONAL SECURITY

While traditional understandings of security privileged the protection of the state as the "referent object" against the threat of military attack, the field of security studies has recently embraced a variety of non-traditional conceptions with a much wider variety of threat/object pairs. We owe the useful distinction between "threat" and "referent object" to the Copenhagen School of international relations, which also brought us the concept of "securitization" — i.e., the process by which problems become elevated from run-of-the-mill political problems to "security" problems warranting extraordinary effort and resources, often justifying the suspension of normal rules (Buzan, Wæver and de Wilde 1997). Five of the more commonly discussed non-traditional security issues of potential relevance to the Arctic are human security, cultural security, energy security, economic security and environmental security.

The concept of human security was first articulated in the United Nations Development Programme's (UNDP's) 1994 *Human Development Report*, which argued that individual human beings were the primary referent objects and that threats to their security were context-specific (1995). Critics were quick to notice flaws in this early conceptualization, not least of which was that it was radically subjective, provided indeterminate guidance for policy, and was difficult to distinguish from both "human rights" and "development" (Paris 2004; Howard-Hassman 2012; Daudelin and Hampson 1999). But it did have the effect of sensitizing both policy makers and publics to a range of issues that caused high levels of death, misery and morbidity, but that had not attracted sustained attention and resources during the Cold War owing to the preoccupation with avoiding World War III. These issues included (*inter alia*) substate conflict, landmines, small arms and light weapons, human trafficking, food insecurity, disease and violence against women.[5]

In recent years, there has been a minor surge of interest in the human security of Arctic peoples (Lukovich and McBean 2009; Heininen and Nicol 2007; Daveluy, Lévesque and Ferguson 2011; Hynek and Bosold 2010). The issues, of course, are not exactly the same as they are, say, in Sub-Saharan Africa or Afghanistan, but they are real. They primarily concern the relative material quality-of-life disadvantages Arctic indigenous peoples experience vis-à-vis the non-indigenous populations of Arctic countries. Life expectancy is shorter and rates of infant mortality, suicide, substance abuse, spousal abuse and sexual abuse are all typically significantly higher. To some extent, these issues are a function of cultural dislocation — the loss of indigenous languages, the erosion of traditional cultural practices and so forth — but by any measure, the most important factor has been the effective colonization of the Arctic by non-Arctic peoples and the sense of disempowerment and humiliation that this brings. The experience and the pathology may not be unique to Arctic peoples — it is a sad fact that indigenous peoples everywhere suffer similar disadvantages, deprivations and depredations — but the effects are especially noticeable in the Arctic precisely because of the delicacy of the relationship between the land and the people and the combination of small numbers and high dispersion. There are relatively few buffers to cultural conquest in the far North.

Climate change is, by all indications, an accelerant for human and cultural security challenges. With the warming of the Arctic and the retreat of the ice, traditional ways of life become harder to maintain even where there is the will to do so. One of the great unknowns is food security. The same may be said of

3 Notably, all of the countries involved in actual or potential maritime jurisdiction disputes in the Arctic are either signatories to the UN Convention on the Law of the Sea or are tacitly observing its provisions, which include various requirements for the peaceful settlement of disputes. See Permanent Court of Arbitration (2009).

4 See, for example, Huebert (2009) and CBC News (2009).

5 The three countries that took up human security most energetically in their foreign policy platforms were Canada, Japan and Norway. For a representative Canadian operationalization, see Department of Foreign Affairs and International Trade Canada (DFAIT 2002). The Harper government has distanced itself from human security because it is so closely identified with the previous Liberal government, and in particular with former Liberal Foreign Affairs Minister Lloyd Axworthy (Davis 2009).

food supplies everywhere — climate change models are notoriously sensitive to assumptions, specifications and inputs — but in the Arctic, there is relatively little room for error. It is a particularly delicately balanced ecological zone (Wesche and Chan 2010; Duhaime 2002; Duhaime and Bernard 2008).

Energy security is a rather different kind of problem for the Arctic than it is for the rest of the world. The Arctic's energy needs are modest in absolute terms, and climate change is unlikely to have a dramatic effect on them, either in terms of supply or demand. But climate change may well make the Arctic more important for the rest of the world's energy security and economic security. It may do so in two primary ways: first, by increasing the commercial viability of exploiting Arctic oil and natural gas deposits, fishing grounds and ore deposits; and second, by opening up new transportation corridors. For Arctic peoples, this represents something of a mixed blessing. On the one hand, investment in resource extraction and transportation brings the promise of jobs and improvements to infrastructure and overall wealth; on the other hand, it threatens to accelerate the erosion of traditional cultures and increase the danger of environmental catastrophe.

How likely are these to happen? With respect to resource extraction, it is worth bearing in mind that the Arctic has always been the big payoff lurking just around the corner. Nowhere and never has it lived up to its resource extraction hype. The reasons for this are complex, but harshness, remoteness and lack of infrastructure have always been factors. Tellingly, a fairly recent major study of the future of natural gas refers only five times to the Arctic, once in neutral terms and four times to warn of the difficulties of Arctic gas exploitation (Victor, Jaffe and Hayes 2006, 128–9, 142n, 144, 394).[6] A warmer Arctic may well increase the commercial viability of Arctic fisheries, but there are many uncertainties both about sustainability and the degree to which local populations would benefit vis-à-vis foreign multinationals higher up the value-added chain. Climate change will certainly increase the number of days during which Arctic shipping routes are open each year, but neither the Northwest Passage (NWP) nor the NSR across the top of Russia is likely to become a major shipping artery anytime soon (Lasserre 2011). The prospects for the latter are certainly much better than for the former, for a variety of reasons: it is ice-free a larger proportion of the year; it offers more of a distance savings for a dramatically higher volume of shipping; and it boasts a much more highly developed shipping infrastructure in terms of available ports, icebreaker services, and so forth (Pettersen 2013; Headland 2010). And yet even the NSR's prospects seem modest at best.

6 See also Moe (2012).

The unpredictability of sailing conditions represents a deterrent to container shipping, which is highly just-in-time oriented; introduces speed uncertainties, which has a strong effect on scheduling and fuel efficiency; increases insurance costs; and requires shippers to take on expensive Russian pilots (Verny and Grigentin 2009; Schøyen and Bråthen 2011; Liu and Kronbak 2010; Khon et al. 2010; Ho 2011).[7] In addition to being geographically less attractive, the NWP is far less hospitable than the NSR; climate models suggest that it is likely to be ice-free far less often and vulnerable to persistent icing at crucial choke points (Howell et al. 2008). If shipping through either route increases dramatically, it will probably take the form of bulk rather than container shipping — which poses especially acute environmental dangers in case of accident (Lasserre 2011, 806–7).

This last point raises the important issue of environmental security. Commentators univocally note the particular sensitivity and fragility of Arctic ecosystems both to pollution and to disruption. The Arctic and the Antarctic are the two regions of the Earth that have the lowest net energy input, owing to low solar forcing and limited inter-zonal energy transport mechanisms.[8] This significantly extends the time required for biotic adjustment. Put another way: the Arctic would take many times longer than a tropical or semi-tropical zone to recover from an oil spill or similar disaster. This unusual vulnerability points toward the importance of ensuring that development of the Arctic takes place within the context of strict environmental regulations and robust regional environmental governance.

WHAT'S MISSING FROM THE ARCTIC GEOPOLITICS DISCOURSE?

The discussion to this point would suggest that the Arctic is a region with great potential, but fraught with danger. This is true enough, but the point might be misconstrued. One might be tempted to say that the takeaway is simply to ensure that the development of the Arctic takes place in a cooperative, coordinated, appropriately governed fashion. Traditional geopolitics may not be at stake in the Arctic, but non-traditional geopolitics most certainly is, and it is tempting to draw the lesson that we must

7 Even relatively optimistic assessments of the commercial viability of the NSR flag serious obstacles such as these; see, for example, Xu et al. (2011), but cf. Lee (2012).

8 The major exception to this is the Atlantic Conveyor, which transfers heat from the Gulf of Mexico to Northern Europe via the Gulf Stream — the mechanism that keeps Murmansk ice-free year round at the moment. This "heat pump" is vulnerable to fresh-water hosing caused by glacial melting, particularly in Greenland. See, for example, Kageyama et al. (2010).

move forward gingerly to maximize the benefits and minimize the costs.

This is not the lesson.

It is true that human, cultural, energy, economic and environmental security are all at stake in the Arctic, and that we must take care to avoid harm where possible. But in the grand scheme of things, these are all relatively minor problems:

- Owing simply to the relatively small numbers of people concerned, Arctic *human security issues* pale in comparison to human security challenges elsewhere. In view of the horrific levels of organized violence and exploitation that millions of people experience on a daily basis in failed states around the world, the challenges that Arctic populations face seem more like policy failures than acute security problems.

- *Cultural security* is, in any case, a questionable concept, as culture is inherently dynamic; it cannot be protected from change, and it is difficult to imagine the normative argument that it *ought* to be protected from change. At most, one can argue that it ought to be protected from artificially rapid change, which is demonstrably psychologically disruptive.

- *Energy security* is a challenge around the world, but no more so in the Arctic, and there is little reason to think, despite the perennial hoopla, that the Arctic will be the cure for energy security challenges elsewhere.

- Likewise with respect to *economic security*: the Arctic is more likely to depend upon the national policies of Arctic countries than on grandiose development initiatives originating elsewhere. As for the economic security of the rest of the world, the marginal contribution of Arctic resources in a warming world is not likely to have a material impact, particularly in view of the enormous increase in demand for resources that we will likely see from populous, rapidly developing countries such as India.

- As far as *environmental security* is concerned, the Arctic is certainly a uniquely vulnerable region; but given the likelihood that it will never live up to its resource development and transportation hype, and in view of the fact that environmental disasters such as blowouts, oil spills, tailing pond leakages and other extractive industry accidents will only have local (if unusually persistent) effects, it is hard to make the case that the Arctic will be the site of the most egregious environmental disasters in the years to come.

What really makes the Arctic important from a geopolitical perspective is the threat it poses to *ecospheric security*. This is a conception of security that has yet to make its way into the mainstream even of non-traditional security discourse.[9] The ecosphere is that part of the Earth that does (or could) support life, and its health depends crucially upon atmospheric homeostasis and adequate biodiversity — the latter of which, according to prominent climate scientists, may be a precondition for the former.[10] At no time in known history has the planet experienced a more rapid rise in greenhouse gases or a faster increase in mean surface temperature. True, it has been hotter at times, and the atmosphere has borne more carbon; but the crucial consideration is the rate of change. An elastic band will stretch much farther without breaking if pulled slowly, but we are stretching atmospheric chemistry at an unprecedented rate as a result of fossil fuel emissions. The Arctic is relevant here because vast quantities of powerful greenhouse gases — carbon dioxide and methane, in particular — are locked up in permafrost. A rapidly warming Arctic has the potential to shift from a net carbon sink to a net carbon source (Schaefer et al. 2011), accelerate warming worldwide, increase the frequency and severity of wildfires (which in turn are powerful causes of warming) (Mooney 2013), increase the frequency and severity of extreme weather events in other climate zones (Greene and Monger 2012), and both alter and amplify global climate feedbacks (Sommerkorn and Hassol 2009).

Less ominous than ecospheric catastrophe, but still of concern on a scale that dwarfs any of the local security challenges facing the Arctic, is sea-level rise caused by polar warming (Rignot et al. 2011; Hansen and Sato 2012; Kinnard et al. 2011; Livina and Lenton 2013; Levermann et al. 2013). Arctic sea ice is not a major issue here, except as regards thermal expansion and the effect of salinity dilution on heat transport mechanisms. But the Greenland and Antarctic ice caps are a major issue, as both currently sit on land and are not at the moment displacing their own volume in water. Estimates of the mean global sea-level rise we could expect as a result of polar ice cap melting are, of course, uncertain, but even a relatively modest rise will swamp island states such as Vanuatu and the Maldives wholesale, and will disproportionately affect Asia, the most populous continent and increasingly the engine of the global economy (see Figure 1).

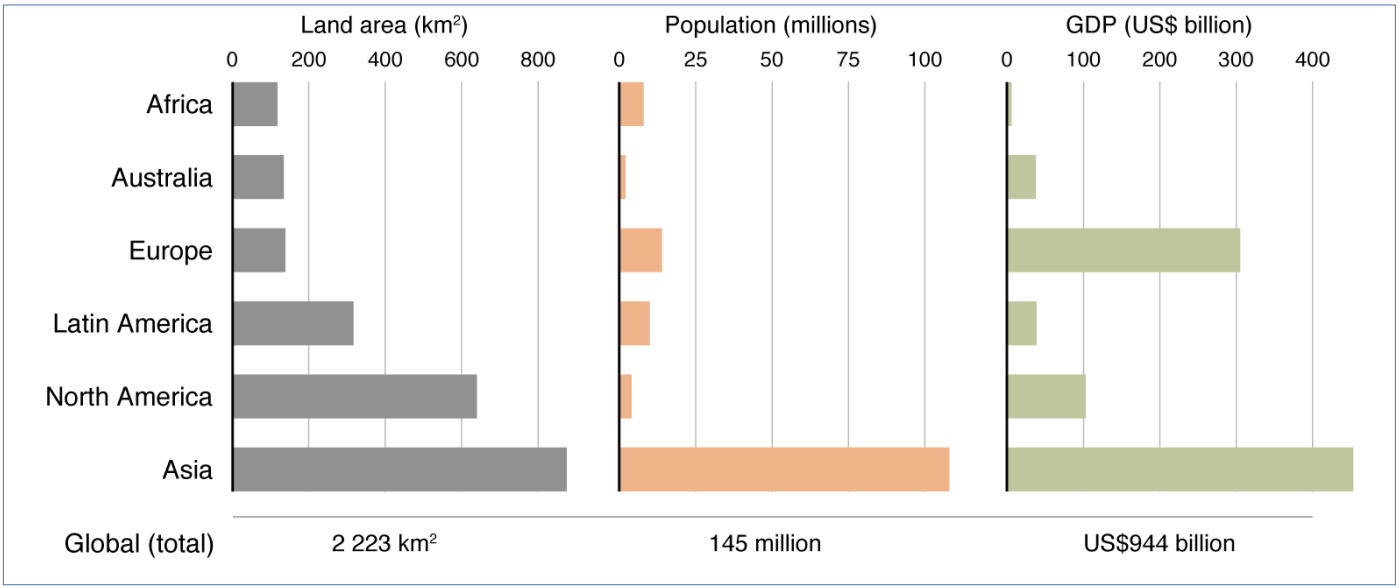
The Arctic is not itself a site of interesting geopolitical value; but it has enormous, generally unappreciated geopolitical value to non-Arctic regions both as a proverbial canary in

9 The term "environmental security" results in more than 700,000 hits on Google; the term "ecospheric security" results in eight, three of which are from my University of Waterloo course on security ontology.

10 The seminal article is Lovelock and Margulis (1974).

a coal mine and as a potential climate change time bomb in its own right. Ironically, if we do not find a way to wean ourselves off carbon, the Arctic may itself actually become one of the few remaining places on the planet capable of sustaining human habitation (Hansen et al. 2013; Morgan 2009; Lovelock 2006a; 2006b). Needless to say, there is no Arctic-governance fix to this. It is a global problem requiring an urgent, concerted global solution. This is a problem for which traditional geopolitical lenses and traditional geopolitical rivalries are pointless distractions — and for this very reason are serious security threats in and of themselves.

Figure 1: Population, Area and Economy Affected by a 1m Sea-Level Rise



Source: Hugo Ahlenius, UNEP/GRID-Arendal, http://bit.ly/117XpTz

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