



DISARMING ARCTIC SECURITY

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Arctic patrol vessels: military or civilian, combat or constabulary roles?

Early in the life of his Conservative Government, Prime Minister Stephen Harper retreated from an election campaign pledge to build three armed heavy icebreakers for the Canadian Navy, to be based in the Arctic. Once elected, the Harper Government reconsidered and opted instead for a single icebreaker for the Canadian Coast Guard (CCG)¹ and six to eight patrol ships for the Navy to operate in the Atlantic and Pacific Oceans, as well as in the Arctic during the summer navigable season. While the patrol ships project is certainly underway, construction has not begun. In other words, there is still time to question and rethink.

The Arctic/Offshore Patrol Ships (AOPS) are to undertake surveillance in support of enhanced situational awareness within Canada's Exclusive Economic Zones in all three oceans, and, in cooperation with other elements of the Canadian Armed Forces and other departments and agencies of government, contribute to the assertion and enforcement of Canadian sovereignty.² The current cost estimate is \$8.6 billion over 25 years – \$3.1 billion to acquire the ships and the necessary infrastructure at Halifax, Esquimalt, and Nanisivik, and \$5.5 billion to operate (including personnel costs) and maintain them for 25 years.³

The AOPS project, along with the CCG icebreaker acquisition, involves fundamental assumptions about the nature of the security challenges in the Arctic and appropriate policy responses, and thus raises some basic questions:

- Will safety and security in Canada's arctic be best served by combat or constabulary ships?
- If the primary maritime requirement in the Arctic is constabulary, as the navy itself insists, should the vessels deployed be operated by military or civilian authorities?
- Are the proposed AOPS the best option for the envisioned Arctic constabulary role?

1. Combat or Constabulary roles?

This question of combat or constabulary capacity has actually been decided in favor of the latter according to the Statement of Operational Requirements issued by the Department of National Defence (DND) in May 2009.⁴ This basic guidance document doesn't make it quite that clear, but it does say, for example, that the ships "will be fitted with [a] gun system appropriate for use in constabulary roles and force protection."⁵ The same document specifies a 25 mm gun system, described as "principally for sovereignty enforcement against *non-military ships*" (emphasis added).⁶ A Canadian Forces official reinforced the point at a 2009 Senate Committee hearing, saying that the AOPS's armament "is designed to do enforcement more at the constabulary end of the spectrum than at the war-fighting end..."⁷

Of course, this basic constabulary posture has its critics. Given the proposed AOPS' lack of serious icebreaking capacity (although the capacity to operate through a full meter of one-year ice is certainly not nothing) and its modest gun system, one commentator concluded, "in short, can't break ice, can't fight."⁸ University of Calgary Arctic and military expert Rob Huebert agrees that the proposed weapon is inadequate, but also believes that it will be possible to upgrade these at a later date to give the AOPS a future capacity for missiles and torpedoes.⁹

Nevertheless, there is broad consensus that the Arctic security environment faced by Canada and the circumpolar region points to constabulary rather than military imperatives. Threat assessments, after all, should make a difference to military procurement. Any threats to sovereignty, territorial integrity, regional stability, and the full range of potential national security challenges obviously need to be taken seriously, but so too should the absence of such threats and challenges. If, as security and military officials in Canada and other Arctic states repeatedly assure us, there are no military threats in the Arctic, and if there are no credible prospects for such threats emerging in the foreseeable future, that ought to affect military deployment choices for the region.

The developing Canada-US tri-command arrangements for the Arctic – involving the Canadian Joint Operations Command, the US Northern Command, and the Canada-US North American Aerospace Command (NORAD) – are premised on just such an absence of military threats. The tri-command focus, therefore, is on building up the capacity to monitor civilian commercial activity in the north and to support civilian agencies and Government departments in ensuring compliance with laws and regulations and thus to effective governance there. So the tri-command framework document acknowledges "increases in human activity and resource development," but insists that these activities "will not result in armed conflict in the foreseeable future" and that "relationships among Arctic nations will remain stable and cooperative." The tri-command arrangement thus calls for "a whole of government framework" and points out that "defence issues do not drive Arctic affairs." As a result, "the Canadian and US militaries will support other departments and agencies in response to threats and hazards in the region when requested and directed."¹⁰

Of course, military planners tell us that they have to plan for the unexpected just as certainly as for the expected, but it's not quite as straight forward as that – if it were, there would be no logical limits to the threats and perils for which defence planners should be preparing. But there are very real limits to capacity and to resources, so threats must be triaged. Some threats deserve to take priority over others, and in the Arctic the threats that deserve priority attention are, by DND's own reckoning, all non-military threats.

The May 2009 statement of requirements for the AOPS refers to five "security challenges to Canada at sea": illegal attempts to exploit renewable and non-renewable natural resources such as oil and gas, fish, and minerals; pollution; criminal activities such as smuggling of narcotics and illegal immigrants; unauthorized transits and/or presence by foreign ships; and piracy and terrorist threats to maritime traffic."¹¹ None of these is a military threat and the Department of National Defence does not have primary responsibility for responding to any of these security threats.

So if threats are to be taken seriously, and if threat assessments are to be the foundation on which security policy and procurement are to be based, then what you can't do is insist that, despite the absence of military threats in the Arctic, equipment procurement and deployment should proceed as if such threats were in fact present. Some might argue that the reason there are no threats is because an effective military presence has deterred them – but it's not an argument that would be persuasive for the Arctic since there has in fact been very little ongoing military presence there.

Any questions about maritime borders (and they are questions, not threats) will not be adjudicated by military means. Furthermore, there is no threat to regional stability inasmuch as all Arctic states have agreed that differences will be sorted on the basis of established international law, that being the gist of the 2008 Illulissat Declaration.¹² Through it the five Arctic Ocean states understand that it is in their mutual interests that any disputes or differences not be mediated by military means.

Russia similarly focuses its Arctic military presence on the combat of terrorism, smuggling, and illegal migration, as well as resource protection. The IISS says this orientation “is reflected to some extent in Russia's newest naval shipbuilding programme, which has deprioritised the more ambitious and less necessary ships, such as the aircraft carrier and cruise programme, in favour of platforms that will enable Moscow to monitor and govern its waters, such as frigates and corvettes.”¹³

The mission and minimal military capacity of the proposed Arctic patrol ships are consistent with both the Illulissat Declaration and regional threat assessments. The contribution that the AOPS are to make to security comes, not in the form of enhanced military combat capability, but in a greater capacity to “support OGD [other government departments] and agencies in responding to constabulary matters such as over-fishing, environmental degradation, criminal activities or illegal immigration.”¹⁴ Of course, that doesn't mean the proposed ships are in fact ideal for that purpose. As the discussion below emphasizes, they need to be judged by their capacity for such constabulary roles, not by their combat capabilities.

2. DND or CCG?

Though the proposed arctic and offshore patrol ships, the AOPS, are to be designed for constabulary and related roles, not for combat, they are nevertheless conceived of as naval, not civilian, vessels and it is the government's continuing assumption that they will be operated by the Royal Canadian Navy. But that assumption, along with the intention to give the navy a prominent Arctic role, is also subject to considerable criticism, outside and inside the Canadian Forces.

In 2007, in the context of the proposal to equip the navy with three armed heavy icebreakers, the Standing Senate Committee on National Security and Defence was unreserved in its opposition to a major navy presence in the Arctic. “Canada's northern sovereignty is not being threatened by invading navies,” argued the committee, and “sovereignty in the North is not going to be defended by force....” Furthermore, “the Navy has not broken ice anywhere for half a century.” The Senators therefore concluded that a lightly armed Coast Guard would be the best means of reinforcing northern maritime sovereignty and law enforcement.¹⁵

By some accounts even the navy has serious misgivings, worrying that an expanded Arctic role will undermine what it regards as its primary global defence role. In the early stages of the AOPS discussion, defence analyst Rob Huebert told the Canadian Naval Review that the navy fears getting “stuck” in the Arctic. If the navy gets too heavily focused on the Arctic, the fear is “they will not get the full capability replacement that they need for their blue-water activities.” Defence journalist/analyst Sharon Hobson thus concluded that “the navy is determined that the A/OPS should not be seen as a military combatant, that they would only be useful in a constabulary role, so as not to give the government reason to renege on its promise for 15 new surface combatants.”¹⁶

Another cause for concern is the assumption that if the navy is sometimes called upon to aid civil authorities, it should then be equipped as if it were a civil authority. In other words, if the policing role in the Arctic is to be enhanced, why not better equip the police and related civil authorities to carry out their core mission?

The Department of National Defence does have a responsibility to come to the aid of the civil authority when such assistance is requested. DND in fact is the one department or agency of Government that is resourced to maintain major capabilities on a standby basis, for use in emergencies, domestic or foreign. The logic is that because the navy, as well as other elements of the Canadian Forces, must maintain the military capacity to respond to military threats to sovereignty and territorial integrity, and to contribute to missions abroad, those standby forces should in the meantime always be available to civil authorities, to be drawn on when civilian law enforcement, search and rescue, and emergency measures capacities threaten to be overwhelmed. But in the case of the AOPS, the logic adopted is in some ways reversed. Instead of equipping civilian agencies with the capacity needed, supported by the military in extraordinary circumstances, the Arctic ships plan is, rather than provide civilian authorities with the means to more effectively meet their civilian responsibilities, to instead provide the navy with equipment designed to meet purely civilian responsibilities. If civilian departments and agencies of government are mandated, as the AOPS statement of requirements puts it, to cover “constabulary matters such as over-fishing, environmental degradation, criminal activities or illegal immigration,” why provide the equipment needed to fulfill that mandate to the navy? What if a large city’s snow clearance department was chronically underfunded and thus regularly found its snow plows unable to cope, forcing it to call on the army to help – would that lead authorities to decide that, instead of providing the city with more snow plows, they would equip the army with snow plows so it could better assist the city the next time its snow clearance teams weren’t up to the job?

The AOPS Statement of Operational Requirements in effect follows that logic by insisting that, because the military should be able to come to the aid of civilian authorities in emergencies, it should acquire essentially civilian (constabulary) equipment: “While the responsibility for addressing most national maritime security issues resides with other [civilian] government departments, the Canadian Forces must stand ready to provide support in these endeavours and to provide assistance to Canadian citizens if needed.”

The Canadian Forces do have particular maritime surveillance and control responsibilities through Maritime Command (MARCOM). It is mandated to “respond to maritime incidents, contribute to surveillance of Canadian approaches, and to assist in the tracking of vessels of interest,” and to intercept and board such vessels when required. As such, MARCOM and other elements of the Canadian Forces enter into agreements with other government departments, including the DFO [Fisheries and Oceans], the Public Safety Canada/RCMP and Environment Canada.¹⁷ But the point is that the CF are to fulfill these obligations with equipment acquired for their primary national security roles.

The CCG is similarly mandated to assist other Government Departments. As an agency of the Department of Fisheries and Oceans, it has responsibility for supporting marine navigation and communications, traffic management, icebreaking and ice-management, marine search and rescue, marine pollution response, and support to other government departments and agencies.¹⁸

The AOPS statement of requirements lists typical AOPS tasks that are within the mandates of both the navy and the Coast Guard: “a) conduct presence and surveillance operations throughout Canada’s EEZ, including in the Arctic; b) support CF sovereignty operations; c) support OGDs in their ability to enforce their respective mandates in areas such as fisheries regulations, immigration, environmental protection and in responding to non-military or terrorist threats to Canada; d) contribute to humanitarian assistance and disaster relief in the waters contiguous to continental North America; e) conduct SAR, to include, acting as the On-Scene Commander, and providing communications relay to other units, as required; and f) support Aid of the Civil Power operations.”¹⁹

So who should do all that, the navy or the coast guard? A strong case can be made for the latter. Journalist David Pugliese of *Defence Watch* at the *Ottawa Citizen*, makes the point that at present Canada has “no enforcement fleet in the Arctic, only a yearly northern military exercise by thin-hulled frigates.” In fact, he says, “Canada in its entirety has no dedicated enforcement fleet. The Navy trains for warfare, and mainly disregards police work. The RCMP has no fleet worth the name. The Coast Guard has no enforcement authority. We are weak on the water.” That leads to this suggestion regarding the Coast Guard: “...Canada, with the world’s longest coastline and vast expanse of unprotected waters, could well change our unarmed Coast Guard into one that emulates the U.S. Coast Guard. That good and admired outfit combines aid to navigation, search and rescue, and ship inspection with such duties as law enforcement and drug interdiction. Canadian Navy captains have told me our country needs a counterpart to the U.S. Coast Guard.”²⁰

Senator Colin Kenny, who, in his former role as Chair of the Senate Committee on National Security and Defence, was never one to try to restrain Canadian military capacity and operations, doesn’t want the navy in Canada’s Arctic: “Everyone agrees that there is no military threat to our country in the Arctic, which is one of the main reasons our navy hasn’t patrolled there for 50 years. The coast guard does. Instead of spending a reasonable amount of money to upgrade the coast guard’s icebreaking capabilities, the government is charging ahead with the construction of six to eight armed Arctic patrol vessels to get the navy involved in northern ‘defence.’ It is doing so despite a

shortage of funds to build other naval vessels needed in southern waters and for deployment abroad.”²¹

Other analysts agree that the navy, with little traditional focus on the Arctic, is not the right choice for strengthening Arctic presence, especially since required Arctic tasks fall naturally under the Coast Guard’s mandate.²² Hence, the example of the US Coast Guard is cited. It is not the Pentagon that is taking the lead on the Arctic. The American Navy and all American forces in Alaska are oriented much more toward the Pacific and war-fighting than to the Arctic.²³

Hillwatch.com offers this February 19, 2014 commentary:

“For a couple of years now there has been an Interdepartmental Task Force, headed by the Coast Guard, on the subject of arming the Coast Guard. The work the Task Force is doing has been slow going but recently it has been injected with some new energy and a burr in the saddle so to speak. The result is that there are now rumours floating around that Cabinet is considering arming the Coast Guard and possibly even taking CCG out of Fisheries and Oceans and making it its own Separate Statutory Agency, perhaps as part of the Public Safety constellation. It is not that this idea is new to the Conservatives. Certainly, taking the CCG into Public Safety was a Conservative Party resolution at least 3 elections ago.

“Arming the Coast Guard and giving the Coast Guard a stronger mandate in the police and patrol space accomplishes a number of objectives. First, it takes redundancies out of the system and produces cost savings as it makes the RCMP, provincial police fleets redundant in many instances. Second, it means that the need for Naval vessels in the North is reduced dramatically. If CCG icebreakers are armed, the need for the AOPS is drastically reduced. Third, as a service agency, the CCC could be in a position to charge considerably more user fees.”²⁴

A 2011 report of the Canadian Defence and Foreign Affairs Institute²⁵ argues that sorting out the respective roles of the Navy and the Coast Guard first requires the development of an overall maritime policy to clarify roles and areas of operation. In the meantime the report recommends increased cooperation between the two.

3. Do the AOPS fill the defined need?

Quite apart from the question of who should operate Arctic constabulary ships, there is the additional question of whether the proposed Arctic and offshore patrol ships are the best option? The complaint about them is not simply that “they can’t break ice and they can’t fight.” The latter is irrelevant in any event. Fighting isn’t their job, and the suitability of the AOPS should be evaluated with that in mind – are they appropriate for a constabulary role in the Arctic?

A more serious criticism is that the attempt to integrate naval, constabulary, Arctic, and southern roles and environments, among others, has left them without adequate capacity in any of those roles or contexts. As noted in the *Canadian Naval Review*, the AOPS “are a hybrid design for both arctic and offshore patrol work. Arctic operations require high endurance: lots of capacity for

supplies plus hauling all waste by-products out again. Fuel is an especially critical consideration. This, plus the basic need for mass and power to force through ice, which has vastly greater resistance than water no matter the thickness, all puts a premium on size. Size is expensive, which reduces the number of ships that can be built within the funding envelope provided by the shipbuilding and procurement strategy. The offshore patrol function puts a premium on numbers for maintaining presence in our waters to counter criminals, smugglers, illegal immigrants, poachers and polluters. This drives down the size requirement essential for arctic work and shortens the range from supporting bases.”²⁶

According to the statement of operational requirements, “experts in Arctic operations, including OGDs and commercial industry representatives, have stated that the Arctic operating environment is severe and requires a vessel that is, in essence, totally self-supporting in terms of ability to load and unload stores and equipment. Few berthing and port facilities exist and those that exist lack most normal support infrastructure found in southern Canadian ports. In addition, the environment and limited infrastructure means that essential needs such as food, water and fuel are very limited, and if not carried or pre-positioned, are usually unavailable. The severity of the climate means that re-supply can be tenuous. Essentially, if it is not embarked in AOPS, then its delivery may not be assured in time to support the ship’s own requirements or those of the assigned mission.”²⁷

A related complicating factor for the AOPS is their limited range – about 6800nm, compared with the Coast Guard’s heavy and medium icebreakers with ranges of 20,000 to 30,000nm. Without routine refueling available in the north, any visit there from a southern base will be brief.

In 2010 a Senate Committee report on the Coast Guard in the Arctic recommended that multi-mission polar icebreakers operated by the CCG be used as a cost effective way to conduct surveillance and sovereignty patrols, and the Government, in its response, was supportive of the idea. It said that all CCG vessels are multi-tasked and the Polar icebreaker, the *CCGS John G. Diefenbaker*, to which the Government is committed as replacement to the *Louis S. St-Laurent* heavy icebreaker, “will contribute to Canadian Arctic sovereignty requirements by: maintaining a visible presence through community visits (often associated with the delivery of medical care); providing icebreaking, logistical and platform support to other government departments (notably DND and the Royal Canadian Mounted Police [RCMP]); providing platform support to science activities; and, escorting foreign and domestic vessels through Canadian waters.” Furthermore, the new icebreaker will also support maritime security, national defence, and policy enforcement activities in the Arctic by means yet to be determined through future discussions with DND, the RCMP, Canada Border Services Agency, and DFATD. The Government’s response added that, “while not an enforcement agency, the CCG is the only agency capable of providing on-water platform support to departments and agencies charged in challenging ice conditions. For example, DND will require support from the CCG to effectively extend both the AOPS operational reach into areas of heavier ice concentration and operational season into the early Summer/late Fall. By virtue of its presence, the CCG will also face an increased expectation to be the “eyes on the water” and collector and disseminator of maritime domain awareness.”²⁸

Senator Kenny says “sovereignty is best exercised by having the ability to get around, and a Class 10 icebreaker can break up to 10 feet of ice. If we control who can move around the Arctic, that’s exercising sovereignty.”²⁹ Michael Byers and Stewart Webb come to a similar conclusion in their *Titanic Blunder* report.³⁰ They recommend canceling the AOPS and acquiring separate ships for the Arctic – icebreakers with a constabulary role – and high-speed offshore patrol ships for the Atlantic and Pacific coasts. The *Canadian Naval Review*, in reviewing that report, acknowledges that “from a policy perspective leaving the arctic to the CCG is an appealing option for the RCN. It keeps the arctic expertise in one department and rids the navy of the need to develop and maintain an arctic capability and presence.”³¹

With the focus turned to icebreaking and search and rescue and other civilian roles, there is another option that is put forward by a researcher at the Canadian American Strategic Review (CASR).³² Instead of the AOPS, he proposes the approach that Russia is taking with its MPSV06, described as “a dedicated search-and- rescue and salvage icebreaker.” These vessels are designed “to contain oil spills at sea, fight fires at sea, recover sunken objects, as well as rescue the survivors of Arctic maritime disasters.” And CASR points out that “those are the sorts of activities that the 2012 DSAB [Defence Science Advisory Board] report warned that Canada is woefully unprepared to perform.” Such a ship would help Canada meet its obligations under the Arctic Search and Rescue treaty. Author Stephen Priestley continues:

“Our point here is not to select a particular design. It is simply to point out the obvious utility of these modern search and salvage icebreakers. Canada has plunged into the ill-considered AOPS Project but steel has yet to be cut and it is not too late to change direction. Instead of pursuing the slow, overweight 'slushbreaker' patrol boat, Canada could shift emphasis to the Canadian Coast Guard and build new Arctic icebreakers. This new generation of Arctic SAR icebreakers are about the same size as the AOPS but would have ice capabilities comparable to the Canadian Coast Guard's planned heavy polar icebreaker, CCGS John G. Diefenbaker.

“Sovereignty assertion comes in all forms but all of them rely on being present. AOPS, even if it satisfies all of its requirements, will be in the Arctic for only a few months per year. Should Canada be required to respond to a maritime emergency at any other time of year, we would have to rely on aging CCG icebreakers. Why not buy the vessel type that we actually need? A small fleet of search-and-rescue/salvage icebreakers would give Canada the presence that it requires in Arctic waters to reinforce its sovereignty claims and meet its treaty obligations.”

In the earliest days of the current Government, the future of Arctic maritime presence was focused on icebreakers. That plan subsequently morphed into one much-delayed icebreaker³³ for the Coast Guard and a fleet of navy patrol vessels with minimal capacity for the Arctic – in effect pleasing no one. The Coast Guard is forced to wait longer for badly needed icebreakers and the hybrid AOPS are too light for season expanding ice operations and still too slow for convincing constabulary operations. It’s not too late to return to the drawing board.

Notes

¹ At an acquisition cost of an estimated \$800 million, the CCG icebreaker is to be built by Vancouver Shipyards, but only after the Navy's two support ships are built, from 2016 to 2019. Office of the Auditor General, 2013 Fall Report of the Auditor General of Canada, Chapter 3: National Shipbuilding Procurement Strategy. http://www.oag-bvg.gc.ca/internet/English/parl_oag_201311_03_e_38797.html#hd3a

² Government of Canada (GOC). <http://www.forces.gc.ca/en/business-equipment/arctic-offshore-patrol-ships.page>

³ Office of the Auditor General, 2013 Fall Report of the Auditor General of Canada, Chapter 3: National Shipbuilding Procurement Strategy. http://www.oag-bvg.gc.ca/internet/English/parl_oag_201311_03_e_38797.html#hd3a

⁴ May 2009 Statement of Operational Requirement (SOR), initially available on the GOC website but then removed.

⁵ SOR, P. 9/52.

⁶ SOR, P. 13/52.

⁷ "Arguments To Support Putting A Halt To The Arctic/Offshore Patrol Ship Project," Defence Watch, Ottawa Citizen, 09 May 2013. <http://blogs.ottawacitizen.com/2013/05/09/arguments-to-support-putting-a-halt-to-the-arcticoffshore-patrol-ship-project/>

⁸ Guest commentator, "Arguments To Support Putting A Halt To The Arctic/Offshore Patrol Ship Project," Defence Watch, Ottawa Citizen, 09 May 2013. <http://blogs.ottawacitizen.com/2013/05/09/arguments-to-support-putting-a-halt-to-the-arcticoffshore-patrol-ship-project/>

⁹ "Plan for Arctic patrol vessels remains controversial," *CBC News*, 21 March 2012.

<http://www.cbc.ca/news/canada/nova-scotia/plan-for-arctic-patrol-vessels-remains-controversial-1.1243542>

¹⁰ "The Canada-United States Military-to-Military Relationship," DND, BG-12.005, 24 January 2012 (last updated 21 January 2013). <http://www.forces.gc.ca/site/news-nouvelles/news-nouvelles-eng.asp?id=4073>

¹¹ SOR, P. 6/52.

¹² The Ilulissat Declaration, Ilulissat, Greenland, 27 – 29 May 2008.

http://www.oceanlaw.org/downloads/arctic/Ilulissat_Declaration.pdf

¹³ Christian Le Miere and Jeffrey Mazo, "Arctic Opening: Insecurity and Opportunity," IISS Adelphi Paper, Vol 2013, Number 440. 13 January 2014.

¹⁴ SOR, P. 1/52.

¹⁵ *Canadian Security Guide Book: An Update of Security Problems in Search of Solutions*, COASTS, Standing Senate Committee on National Security and Defence, March 2007.

<http://www.parl.gc.ca/Content/SEN/Committee/391/defe/rep/rep10mar07-4-e.pdf>

¹⁶ Sharon Hobson, "Plain Talk: Off Course and Rudderless?" *Canadian Naval Review*, Spring 2009 (Vol. 5, Number 1).

<http://www.navalreview.ca/wp-content/uploads/public/vol5num1/vol5num1art9.pdf>

¹⁷ SOR, P. 4/52.

¹⁸ Canadian Coast Guard, "Mission, vision and Mandate." <http://www.ccg-gcc.gc.ca/eng/ccg/mission>

¹⁹ SOR, P. 7/52.

²⁰ "Arguments To Support Putting A Halt To The Arctic/Offshore Patrol Ship Project," Defence Watch, Ottawa Citizen, 09 May 2013. <http://blogs.ottawacitizen.com/2013/05/09/arguments-to-support-putting-a-halt-to-the-arcticoffshore-patrol-ship-project/>

²¹ Colin Kenny, "How not to protect a country," 19 November 2012.

<http://fullcomment.nationalpost.com/2012/11/19/colin-kenny-how-not-to-protect-a-country/>

²² Andreas Osthagen, "Why We Aren't Ready for an Active Arctic," *OpenCanada.Org*, 04 November 2013.

<http://opencanada.org/features/the-think-tank/comments/why-we-arent-ready-for-an-active-arctic/>

²³ Sydney J. Freedberg, "Coast Guard to Navy: Arctic's Covered; White House Oks Arctic Icebreaker," *Breaking Defense*, 21 May 2013. <http://breakingdefense.com/2013/05/coast-guard-to-navy-weve-got-arctic-covered-sort-of-white-house-oks-arctic-icebreaker-studies/>

²⁴ "Time to Rethink Arctic Offshore Patrol Vessels (AOPS)," Hillwatch.com, 19 February 2014.

<http://www.hillwatch.com/Publications/RethinkArcticOffshore.aspx>

²⁵ J.Y. Forcier, "The Canadian Navy and the Canadian Coast Guard: Cooperating Sea Services or Co-existing Federal Fleets?" Canadian Defence and Foreign Affairs Institute and Canadian International Council Strategic Studies Working Group Paper, June 2011.

²⁶ Ken Hansen, "Not just for the Arctic," *Canadian Naval Review*, 21 March 2012 .

<http://www.navalreview.ca/2012/03/not-just-for-the-arctic/>

²⁷ SOR, P. 6/52.

²⁸ "Government of Canada Response to the Report of the Standing Senate Committee on Fisheries and Oceans: Rising to the Arctic Challenge: Report on the Canadian Coast Guard," 08 October 2009. <http://www.dfo-mpo.gc.ca/reports-rapports/200910a-eng.htm>

²⁹ Paul McLeod, "Arctic patrol ships 'dumb'," *The Chronicle Herald*, 16 March 2012. <http://thechronicleherald.ca/novascotia/74207-arctic-patrol-ships-dumb>

³⁰ Michael Byers and Stewart Webb, "Titanic Blunder: Arctic/Offshore Patrol Ships on Course for Disaster," Canadian Centre for Policy Alternatives and the Rideau Institute, April 2013.

³¹ "Titanic Blunder or a Good Compromise?" *Canadian Naval Review*, 12 April 2013. <http://www.navalreview.ca/2013/04/titanic-blunder-or-a-good-compromise/>

³² Stephen Priestly, "Exercising Arctic Sovereignty while meeting SAR Treaty obligations," *CASR* (Canadian American Strategic Review), August 2013. <http://www.casr.ca/mp-sar-icebreaker.htm>

³³ "Arctic icebreaker delayed as Tories prioritize supply ships," CBC News, The Canadian Press, 11 October 2013. <http://www.cbc.ca/news/politics/arctic-icebreaker-delayed-as-tories-prioritize-supply-ships-1.1991522>

The Coast Guard will have to wait for its new Polar-Class icebreaker until after the Vancouver SeaSpan Shipyards complete two joint support ships for the Navy. The shipyard can't do both projects at the same time.