

# Strategic Considerations for Canada's Navy

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Delays in military procurement over the past decade or more mean that, today, the Royal Canadian Navy (RCN) is less militarily capable than at any point since the end of the Cold War. The *Halifax*-class modernization project to upgrade Canada's 12 frigates is on schedule to be complete around 2018, but Canada is without the supply ships it needs to conduct operations as an independent task group and the command and control destroyers that are necessary for area-air defence. In both cases old vessels had to be decommissioned before ships to replace them could be built, and in both cases interim but not ideal solutions have been found. Yet there is a silver lining: the contemporary imperative to rebuild the RCN, recognized by Canada's new government, offers real opportunity to recapitalize the navy in a manner that meets a rapidly changing strategic environment.

disasters in littoral regions. Ice-capable vessels, amphibious ships, anti-ship missiles and defences, and submarines – especially air-independent propulsion submarines – are just some of the more obvious naval capabilities that are raised in light of the emerging strategic environment.

## *Return of Great Power Competition*

### *Russia*

Against the ongoing requirement to address terrorism, non-state actors, civil war and refugees, it can be easy to forget that those actors who most directly affect the lives of the vast majority of mankind are the great powers – and that in the contemporary security environment at least one if not two of those powers is not happy with the status quo. “The existing international security architecture (system) does not ensure equal security for all states,” Russia stated in its *Military Doctrine of the Russian Federation* released at the end of 2014, a clear expression of revisionist sentiment. The country's national security strategy of December 2015 also seems to indicate that Russia is not satisfied with its current status in the world.<sup>1</sup>

Russia's percolating revisionism is manifest in its naval policies. The main external military threat it faces, Russia argues, is NATO and its expansion eastward. This involves both NATO's admission of new members from 1999 onward, and its more recent decision (in response to Russia's action in Crimea) to move some of the alliance's infrastructure eastward. The *Maritime Doctrine of the Russian Federation*, released in the summer of 2015, deems this expansion as “unacceptable” and states that Russia will counter by building up its navy in two geostrategic regions: the Arctic and the Atlantic.<sup>2</sup>

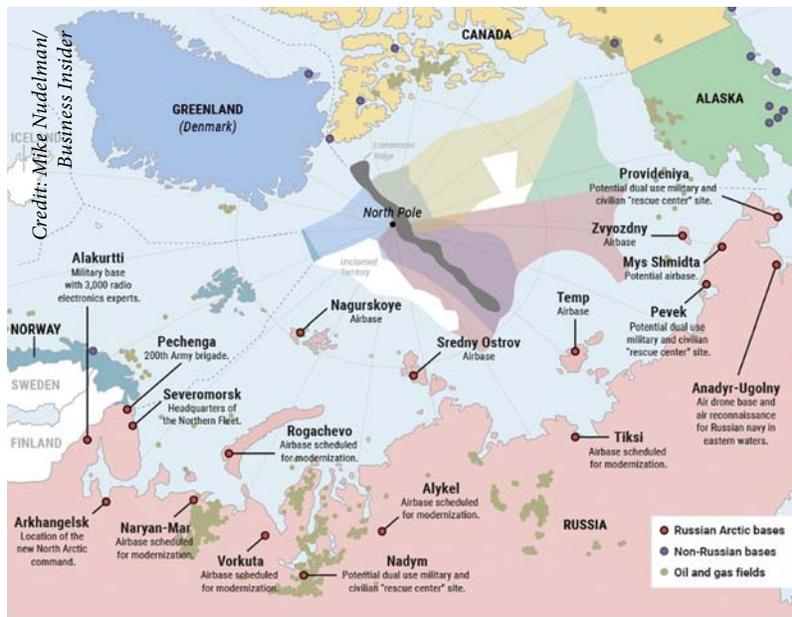
Militarization of the Arctic is becoming a prominent part of Russia's security policy. It is constructing several new bases and reopening six bases from the Cold War era to form a network of naval bases to house warships and submarines. Construction is underway for new nuclear-powered ballistic missile submarines and new nuclear attack submarines. Russia has over a dozen heavy icebreakers, seven of them nuclear-powered, and is building a new class of nuclear icebreakers. It also has plans to station a military unit permanently in the Arctic by 2018, and is making operational over a dozen Arctic airfields. As well, it is deploying both long-range interceptors and strategic bombers to the region, and has created a new Arctic Joint Strategic Command which became



Credit: Anton Chmelev/Wikimedia Commons

The Russian nuclear-powered icebreaker *50 Let Pobedy* (50 Years Since Victory), 7 October 2006. This is the world's largest nuclear-powered icebreaker.

This article outlines some strategic considerations for Canada's navy as it recapitalizes, and points to capabilities that naturally arise in light of these factors. The list, which is not exhaustive due to space, includes: the return of great power competition and the intersection of interests in the Arctic; the development of adversary anti-access/area-denial capabilities in the maritime environment; American emphasis on working with allied navies to tackle maritime threats and secure the sea lines of communication; and a seemingly escalating number of humanitarian



Russia's militarization of the Arctic.

operational in 2014. Russia's activity in the north is part of its overall anti-NATO stance, but more importantly it is driven by a desire to control the Northern Sea Route as shipping increases in the wake of climate change and melting ice. By 2030 the route is expected to have nine weeks of open water as compared to two weeks in 2012.<sup>3</sup>

In the south, Russia is constructing a second naval base on the Black Sea shore, as well as adding 28 surface ships, several aircraft and helicopters, and six new *Kilo*-class diesel-electric submarines by 2020, all as a means of developing a "deterrent to the aggressive aspirations of our trans-Atlantic partners and their allies."<sup>4</sup> Russia's firing of two dozen cruise missiles into Syria in 2015 from warships in the Caspian Sea demonstrated that NATO planners must now contend with a Russia that can hit much of Europe with cruise missiles launched from Russian waters. Russia also fired cruise missiles from a submarine in the Mediterranean.

### China

Less rhetorically revisionist than Russia, China's subtle policy shifts and concrete actions reveal a country that is also unhappy with the existing international order. *China's Military Strategy*, released in 2015, speaks of a generally favourable external environment that is nonetheless marked by "hegemonism" and "power politics" and an "intensify[ing] international competition for the redistribution of power."<sup>5</sup> The strategy states explicitly for the first time that China will move beyond a longstanding policy of "offshore waters defense" – essentially sea control in China's littoral regions and around Taiwan – to a new approach that combines this ongoing emphasis with "open seas protection." The reference is to blue-water operations to secure China's political and economic interests, including maintaining open the sea lines of communication through the Straits of Malacca and the Indian Ocean, and securing its claim to much of the South China Sea.

China's ambitious naval modernization program involves new ships, amphibious vessels, submarines, patrol aircraft and an aircraft carrier. Like Russia, China is placing a high priority on its submarine force, including nuclear ballistic missile submarines, nuclear attack submarines, and air-independent propulsion diesel-electric submarines.<sup>6</sup> It is expected that a rising power like China would develop a commensurate military capability. The main concern is not with China's military build-up *per se* but with the country's actions that fall outside international norms, such as the maritime coercion of smaller countries in the region, building artificial islands in the South China Sea and militarizing them, and unilaterally declaring an Air Defence Identification Zone over the East China Sea, among other things.

Less discussed is China's growing interest in the Arctic. China has not released an official Arctic policy and the Arctic does not appear in China's 2015 military strategy, nor in its 2013 Defence White Paper. But in 2010 a Chinese Admiral stated that "the North Pole and the surrounding area are the commonwealth of the world's people and do not belong to any one country."<sup>7</sup> Since that time, Chinese scholars have highlighted the importance of the Arctic for reasons of resources, shipping routes and strategic location.<sup>8</sup> Officials have stated that China's polar policy is to increase its status and influence to protect its "polar rights,"<sup>9</sup> and that its policy in the Arctic is related to becoming a maritime power. Lying 1,000 miles from the Arctic Circle, China refers to itself as a "near-Arctic state" and an "Arctic stakeholder."<sup>10</sup>

China's interest in the Arctic is apparent in its actions. The country owns the world's largest non-nuclear icebreaker, *Xuelong*, which has traversed the Arctic conducting research since the late 1990s. In early 2016 it commissioned a second icebreaker that, while smaller than *Xuelong*, has a much stronger icebreaking capacity. The vessel has been assigned to the People's Liberation Army Navy (PLAN) Northern Fleet and is billed as the first in a series of new icebreakers.<sup>11</sup> China is also building ice-strengthened bulk carriers and tankers capable of commercial Arctic navigation, and in 2015 a flotilla of five Chinese warships sailed through the Bering Strait. In terms of permanent infrastructure, in 2003 China opened an Arctic research centre on Norway's Svalbard Islands, and earlier this decade China sought – unsuccessfully – to establish an Arctic shipping hub in Iceland.<sup>12</sup> For some years China sought permanent observer status in the Arctic Council and this was granted in 2013.

Less reported is the emerging great power dynamic between Russia and China in the Arctic. China has been wary of Russian actions in the Arctic since the summer



The Chinese icebreaker *Xuelong* (*Snow Dragon*) with a 119-member team aboard became the first Chinese polar expedition to sail along the Northern Sea Route into the Barents Sea and upon return sail a straight line from Iceland to the Bering Strait via the North Pole.

of 2007 when Russia restarted bomber patrols over the region and sent a submarine to the North Pole's ocean floor. China's decision to build a second icebreaker, the funding for which was allocated in 2009, may have been prompted in part by these Russian actions. From the Russian perspective, China's statement in 2010 that no state had sovereignty over the Arctic directly challenged Russia's vital interests. "Russia will increase naval patrols in the Arctic Ocean to defend its interests against nations such as China seeking a share of the area's mineral wealth," a Russian Admiral was quoted as stating in 2010.<sup>13</sup> Russia was suspicious of letting China into the Arctic Council and, notwithstanding its anti-Western rhetoric, much of Russia's military construction in the north appears designed to counter what Russia perceives as a growing Chinese threat.

### ***Anti-access/Area-denial Strategies***

For the past decade there has been growing concern with so-called anti-access and area-denial (A2/AD) technologies and approaches to war in the maritime environment. A new term for an old way of war, A2/AD refers to measures to prevent forces from achieving access to an area of operations or, should they gain access, preventing them from operating freely in that area. In the period of the 1990s and early 2000s the United States enjoyed the freedom to operate on the sea and in the air without being threatened. But in the mid- to late 2000s, even as the United States maintained its air superiority, its uncontested access to the world's blue-water and littoral regions started to change. China embarked on a build-up of naval forces optimized to prevent the US Navy from entering waters around Taiwan and even from deploying in the western Pacific in the event of a crisis. Key A2/AD (a term that is not used by China) systems developed or deployed by the PLAN over the past decade include: long-range, precision, anti-ship ballistic missiles; anti-ship and land-attack cruise missiles; nuclear submarines; modern surface ships; and an aircraft carrier.<sup>14</sup> The Air Defence

Identification Zone announced in 2013 is also thought to be part of China's A2/AD strategy.

A2/AD is not a generalized approach but rather a strategy that is being implemented by specific countries in specific regions – what NATO's Supreme Allied Commander Europe, General Phillip Breedlove, has characterized as "A2/AD bubbles."<sup>15</sup> Apart from China, the other notable bubbles are Russia in the North Atlantic, Baltic Sea, Black Sea and potentially the eastern Mediterranean,<sup>16</sup> and Iran in the Strait of Hormuz. During the Cold War the line that can be drawn from Greenland to Iceland to the UK was known as the GIUK Gap, across which the US Navy would have to travel to reinforce its European allies. Russia's focus on revamping its naval forces in general and its submarine force in particular, and on deploying such capabilities to Murmansk to conduct operations in the Norwegian Sea, could threaten North American access to Europe. Similarly, Russia's growing naval force based in Kaliningrad may threaten NATO access to the Baltics. The fear is that the small land bridge between Poland and the Baltic states which connects the Baltics to 'mainland' NATO could be blocked by Kaliningrad-based missiles, making it necessary for NATO to support these allies through an access-denied Baltic Sea. Meanwhile, in the south, Russia's occupation of Crimea has given it a forward base to develop an A2/AD capability in the Black Sea, notably anti-ship cruise missiles. Russia's deployment of land-based air defence systems in Syria that are clearly not aimed at ISIS (which has no air force) and can reach far out over the eastern Mediterranean may also be part of an A2/AD strategy in the region.<sup>17</sup>

Iran is also pursuing A2/AD capabilities, primarily by developing anti-ship ballistic missiles that are more accurate than its current missiles. If successful, Iran could target US aircraft carriers in the Persian Gulf, thereby denying access to the Gulf and controlling the flow of oil. Other Iranian A2/AD approaches include unconventional warfare and terrorism by proxy, maritime

exclusion systems such as mines and fast-attack craft, and air defences.<sup>18</sup> In an A2/AD twist, China is reportedly contributing to the Iranian A2/AD effort, supplying or assisting in the indigenous development of anti-ship cruises missiles, as well as surface-to-air and surface-to-surface missiles.<sup>19</sup> China has also sold Iran naval mines and fast-attack craft.<sup>20</sup>

### ***The US Response***

The US Navy's (USN) most recent naval strategy document, *A Cooperative Strategy for 21<sup>st</sup> Century Seapower* (2015) underscores American concern with A2/AD strategies. Jointly prepared by the US Navy, Marine Corps and Coast Guard, the document points to a proliferation of technologies that is allowing potential adversaries to threaten naval and air forces at a greater range.<sup>21</sup> This is complicating US access to maritime regions and inhibiting the military's ability to manoeuvre within those regions, including the littoral regions. The strategy identifies "the ability to project forces into contested areas with sufficient freedom to operate effectively" as critical in light of the ongoing development and fielding of A2/AD capabilities.<sup>22</sup> *A Cooperative Strategy* highlights five essential functions of the USN, at least two of which – all domain access and sea control – pertain directly to addressing the A2/AD challenge. 'All domain access' involves strengths in areas like cyberspace operations and electromagnetic warfare, while 'sea control' involves surface, undersea and mine warfare, as well as air and missile defence.

The other essential functions listed in *A Cooperative Strategy* are deterrence, power projection and maritime security. The latter two are inextricably linked to a key theme that runs through the document: the need for naval forces

to address instability brought on by a lack of governance in the littoral regions which comprise both the coastal areas where the vast majority of mankind lives, and the waterways close to the coasts. Maritime security involves all naval actions to guard against piracy, terrorism, weapons proliferation and transnational crime to ensure the sea lines of communication remain unencumbered. Naval power projection includes, among other things, strikes against targets ashore (such as, for example, against ISIS), sea-based fire support to land forces, sea basing of logistics support, and ship-to-shore amphibious operations. Amphibious operations and sea basing are also critical for humanitarian assistance and disaster response.

### ***Capability Requirements***

This brief survey of elements of the emerging international security environment points to a number of key capabilities for the navies of Canada and its allies. In the first instance it is clear that the Arctic will be a focal point of the future and in this regard Canada's decision to build Arctic Offshore Patrol Ships and a polar-class icebreaker is a good one. The US Coast Guard has accelerated the timeline for acquiring a new polar-class icebreaker. For its part, the USN has no plans to build ice-capable surface vessels, but will focus instead on air and undersea assets, notably its nuclear-propelled submarines.<sup>23</sup>

Second, anti-submarine warfare has returned as a critical task for Western navies and with it an emphasis on submarines and long-range patrol aircraft. During the Cold War, NATO focused on conventional and nuclear submarines and anti-submarine warfare using long-range patrol aircraft, like Canada's Aurora CP-140s, to maintain open the GIUK Gap. Britain recently announced it would



Credit: PLAN Photo via Global Military Review

*A Houbei-class Type 022 Fast-Attack Missile Craft of the People's Liberation Army Navy (PLAN) test fires C-803 anti-ship missiles.*



Credit: U.S. Navy Mass Communication Specialist 2nd Class Corey T. Jones

Aircraft carrier USS *Theodore Roosevelt* (CVN 71) sails through the South China Sea on patrol in the 7<sup>th</sup> Fleet area of operation on a declared mission of support of security and stability in the Indo-Asia-Pacific region, 5 November 2015.

rebuild its maritime patrol aircraft fleet, which it had retired for budgetary reasons in 2010. Its strategy document calls for nine new Boeing P-8 maritime patrol aircraft which, combined with destroyers, frigates and submarines will create “one of the most capable anti-submarine fleets in the world.”<sup>24</sup> Norway is looking at maritime patrol aircraft options, and a new class of submarines is in the definition phase.<sup>25</sup> In its 2016 Defence White Paper Australia focuses explicitly on strengthening maritime and anti-submarine warfare capabilities. Australia has begun the acquisition process for 12 submarines (up from six in the current force), with the first to enter service in the early 2030s, and it plans to acquire up to 15 new P-8A Poseidon patrol aircraft by the end of the 2020s.<sup>26</sup> In the next few years Canada must begin to take steps to replace its submarine fleet and, considering the growing importance of the Arctic, to ensure that the next fleet has air-independent propulsion to operate under the ice.

Third, it is expected the United States will want its allies to assist in penetrating A2/AD ‘bubbles.’ For this the USN and its allies will need platforms that are more impervious to A2/AD strategies, such as submarines, as well as stand-off weaponry for anti-ship missiles. To address A2/AD strategies on the part of Russia and China, the United States is reinvesting in anti-ship missiles. During the Cold War this was an area of US strength but in the post-Cold War period the emphasis shifted to land-attack missiles from the sea on to land. This emphasis continues but, in addition, the United States has a renewed focus on anti-ship missiles. Canada will want to ensure it incorporates advanced anti-ship missiles in the new Canadian Surface Combatant.

Fourth, the emerging security environment reveals the enduring role of the naval task group, a flotilla of naval platforms that are networked/linked together (even if they are physically far apart) with the combined ability to control events in an ocean space. Canada’s naval task groups typically comprise one or two warships, a supply ship and a submarine, but allied task groups can

be much bigger. The UK’s *National Security Strategy and Strategic Defence and Security Review*, released in 2015, paints a future security environment characterized by growing terrorism and extremism, and the resurgence of state-based threats. Its naval response is a maritime task group centred on a *Queen Elizabeth*-class aircraft carrier equipped with F-35 combat aircraft. In future, Canadian naval task groups could be used for independent operations in the Norwegian Sea much as they were during the Cold War, or in maritime areas (for example, off the Horn of Africa) to combat terrorism and piracy.

Finally, amphibious capabilities will increase in importance. The seemingly growing number of humanitarian and natural disasters, combined with the fact that most of humanity lives within 100 miles of the ocean, indicates the imperative of being able to operate from the sea to the shore, sometimes in a contested environment. The United States, with its vast number of amphibious ships, continues to launch new and bigger such vessels. Britain plans to enhance a *Queen Elizabeth*-class aircraft carrier to support an amphibious capability. And Australia has commissioned two large amphibious ships, one each in 2014 and 2015.



Artist’s conception of Canada’s new Arctic Offshore Patrol Ship design.



Credit: U.S. Navy Mass Communication Specialist Seaman Kari R. Bergman

Something for Canada to contemplate? The forward-deployed amphibious assault ship USS *Essex* (LHD 2) performs a stern-gate marriage with Landing Craft Utility (LCU) 1631, assigned to Assault Craft Unit (ACU) 1 while back loading elements of the 31<sup>st</sup> Marine Expeditionary Unit off the coast of Thailand after completing *Cobra Gold 2008* (CG08) 9 June 2008.

## Conclusion

The Royal Canadian Navy is entering a period of long-term capital renewal at a time when the dominant background forces of global politics are changing. The overall trend in warfare starting in the early 1990s has been from open ocean blue-water operations of the Cold War to littoral operations. Hence, the USN's *From the Sea* strategy documents of the 1990s,<sup>27</sup> concepts which can be seen in NATO's response to the Balkan Wars of the 1990s, continued to dominate in the 2000s, and today they remain critical, such as offshore precision strikes against ISIS. But in parallel – since about the late 2000s – there has been return in emphasis on blue-water operations, driven by the naval build-ups of Russia and China. A2 strategies demand blue-water responses, whether in the Norwegian Sea or Philippine Sea approaching Taiwan. Even as littoral operations continue in response to humanitarian crises and civil strife, capabilities that were once optimized for Cold War operations are making a dramatic and necessary return. 🍷

## Notes

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