

Dr Alix Valenti

## Fire and Ice Naval Build-Up in the Arctic



HDMS *Ejnar Mikkelsen*, second ship of the 'Knud Rasmussen' class built to replace the 'Agdlek' class patrol cutters. (Photo: Naval Team Denmark)

This is the second of a two-articles series on naval build-up in the Arctic.

As most of the world's attention is turned toward the wild fires that have claimed the lives of almost 100 people near Athens, in Greece, more wild fires are claiming hectares of forests across Sweden, including in Swedish Lapland, inside the Arctic circle. Though there thankfully appear to be no deaths resulting from these fires, these events attest to the increasingly disrupted weather patterns the region is witnessing, including a fast melting Arctic that could well be one of the root causes for these heat waves that are stunning most of the world.

The first of this two-parts article series, published in *Naval Forces* III/2018, discussed the changing weather patterns in the Arctic region and the increased activity this is bringing both at civil and military level. It also highlighted growing Russian military activity in the region through a modernisation of its Northern fleet. Katarzyna Zysk, Associate Professor at the Norwegian Defence University College/ Norwegian Institute for Defence Studies in Oslo, told *Naval Forces* that: "The Arctic continues to play a role in Russia's broader military structure, which is not only related to the Arctic." While this may be taken to indicate that a resurgence of Russian interests in the Arctic may not necessarily pose a threat to regional stability *per se*, this second part focuses on how Russia's Arctic behaviour is nonetheless driving a naval build-up in the region. You know, just in case...



Although Canada's interest in the Arctic wavered after the end of the Cold War, its strategic interest for the country was brought back to the fore in 2006 with Stephen Harper's conservative government. However, while his interest for the Arctic region remained high throughout his premiership, from 2006 to 2015, his ambitions were met with the reality of decreasing navy budgets as well as the lack of a consistent threat that made it increasingly difficult for him to justify certain expenses. Today this might have changed.

The latest Canadian defence policy, 'Strong, Secure, Engaged' published in 2017, notes: "NATO has also increased its attention to Russia's ability to project force from its Arctic territory into the North Atlantic, and its potential to challenge NATO's collective defence posture." It continues that Canada and its NATO allies are "ready to deter and defend against any potential threats." Talking about the policy document, Robert Huebert, Associate Professor at the University of Calgary, told *Naval Forces*: "This particular document is quite explicit in noting that the Russians are changing their response to a cooperative international regime, that there is an increasing set of signs that we are returning to peer competitiveness and that there are behaviours now occurring with the Arctic region that have required the Canadian government to make decisions in terms of modernising and improving their military capabilities in the Arctic region." This is also reflected in another docu-

ment published in 2017, by the RCN this time, 'Canada in a New Maritime World - Leadmark 2050'.

However, Adam MacDonald, Class A Reservist for the RCN since he started his PhD in Political Science at Dalhousie University in 2017, told *Naval Forces*: "Canada does not have a navy full time presence in the Arctic - there is no major port, there is no major harbour or basis that Canadian ships could operate of." The Canadian Coast Guard (CCG) ensures the Canadian presence in the region instead. As such, when the RCN takes delivery of the first of its five Arctic Ocean Patrol Vessels (AOPVs) in mid-2019, it will mark the "first time since 1958 that the Navy will have the capability to go into the region," noted Mr Huebert. To this end, the RCN has been training with the CCG to reacquire the skillset necessary to operate in the region. "Focus will be on learning how to operate and truly become a three oceans Navy," added Mr Huebert, "and to this end the CCG will train RCN personnel on CCG vessels."

The contract for the five AOPVs, known as the 'Harry DeWolf' class, was signed in 2015 for a value of \$2.3 billion with an option for a 6<sup>th</sup> ship. The first ship, HMCS *Harry DeWolf*, is scheduled to undergo sea trials this September; the following four ships should be delivered every 12 to 18 months. With an endurance of 120 days, a range of 6,800 nautical miles (nm)/12,600km, and a hull designed to meet Polar Class 5+ requirements (that is, breaking through 1m thick seasonal ice) the 'Harry DeWolf' class will allow the RCN

to “increase [its] presence in the Arctic over the long-term”, as stated in the latest defence policy. The AOPVs, however, are only lightly armed with BAE Systems’ remote-controlled 25mm MK38 machine gun.

Canada also currently has four diesel electric submarines, which however cannot operate in the Arctic according to Mr MacDonald. Neither the previous nor the current defence policies mention plans for acquiring new submarines that would feature this capability, confirming both Mr MacDonald’s and Mr Huebert’s concern that this is not likely to happen any time soon. Moreover, the RCN’s base closest to the Arctic is Halifax, in Nova Scotia, which is still too far. To address these concerns, the Canadian government sought to build the Nanisivik naval facility in the Arctic Bay, turning an abandoned mine into a logistic stopover for refuelling for ships patrolling the waters. However, due to issues with soil contamination and the harsh environment, the facility will be little more than a refuelling base opened three months out of the year (August to October).

 **Denmark**

Denmark, a littoral Arctic state by way of Greenland and the Faroe islands, has a long tradition of operating in the Arctic where Danish ships have a regular presence to ensure a number of missions, including enforcing sovereignty, search and rescue missions, fishery protection and assistance to local communities when needed. As Denmark does not have a dedicated coast guard body, the Royal Danish Navy (RDN) is responsible for these missions.

Talking to *Naval Forces*, Rear Admiral Nils Wang, Director of Naval Team Denmark and Commandant at the Royal Danish Defence College, noted that the last two Danish defence-related documents show that: “The Arctic region has been prioritised, with a government very focused on Arctic issues and challenges; however this does not stem from the Danish perception that there is a threat against its territories.” The Danish Defence Agreement (DA) 2018-2023 notes: “Climate change brings not only better accessibility, but also an increased attention to the extraction of natural resources as well as intensified commercial and scientific activity. There is also increased military activity in the area.” However it also notes that it is key to maintain the Arctic a low-tension area. Similarly, a 2016 report commissioned by the government and prepared by a whole-of-government working group, the Arctic Agreement (AA), focused on how to improve Danish effectiveness in carrying out missions in the Arctic states: “The overall conclusion of the report is that in general in all likelihood the future of the Arctic will be shaped by cooperation and competition in the Arctic rather than confrontation and conflict.”

In this context, the Danish government has made two important commitments to strengthen its presence in the region. Firstly, in 2004 it ordered two ice-strengthened ‘Knud Rasmussen’ class offshore patrol vessels (OPV) to replace the ageing three ‘Agdlek’ class patrol cutters; a third one was ordered in 2013 and all three are now active in the RDN. Designed by Karstensens Ship Yacht, these ships are bigger than their predecessors (1,720t instead of 330t) and are capable of breaking the normal 40cm sea ice and the specified 70cm of hard fjord ice. They have a range of 3,000nm (5,600km), are armed with one Oto Melara Super Rapid gun and two 12.7mm Browning .50 calibre machine guns, and are fitted with a Danish Terma Scanter 4100 radar that can track small targets at distances up to 160km in harsh conditions. Although the OPVs do not feature a helicopter hangar, their helipad can support the operations of a medium-sized helicopter, which can also refuel on-board, thus increasing their range.

and are expected to contribute to anti-surface (ASuW) and anti-submarine (ASW) warfare missions in the region.

“This all means that Denmark has a pretty robust toolbox in the Arctic,” concluded Mr Wang.

 **Norway**

Norway’s position in the Arctic Circle is perhaps one of the most determining factors in its complicated relationship with Russia. It is a coastal Arctic state by way of Lapland, its Arctic region, and right across the border between Norway and Russia, the latter is currently reviving its Murmansk military base. As such, the two countries have been toeing a fine diplomatic line that sees, on one side, continuous cooperation on important matters such as Search And Rescue as well as fishery and broader environmental protection, and, on the other side, both countries securing their defence posture in the region. Russia’s latest



Norway replaced the Norwegian Navy’s fleet of five small frigates with five ‘Fridtjof Nansen’ class frigates. (Photo: Bjoertvedt)

Although Danish defence policy documents do not directly make any reference to Russian activities in the Arctic potentially representing a threat to regional stability, according to Mr Wang: “One of the recommendations in the Arctic Agreement was to start patrolling the [Thetis] frigates in the area a couple of months a year during the summer.” This is partly because the ice-free parts of the Arctic where these frigates will navigate, around Iceland and the Faroe Islands, are also the parts where the Russian submarines would be transiting through to the Atlantic Ocean. “The frigates would be monitoring any potential such activity,” Mr Wang added. In order to facilitate this, in 2012 the Danish Defence signed an agreement to procure nine Seahawk Helicopters from the US Navy (USN). The first MH-60R was delivered in June 2016 and all should be operational with the RDN in the 2020s,

provocations of Norway over Svalbard, an island over which Norway has sovereignty but which Russia sees as a strategic foothold for Western nations to use for military purposes, have done little to quell tensions. These included a simulation of military invasion of Svalbard during Russia’s latest ZAPAD military exercise as well as public statements from Russian officials stating that conflict over the island could become a reality.

“The High North continues to be characterised by stability and cooperation, and Russian strategies for the Arctic still emphasise international cooperation,” reads Norway’s long term defence plan ‘Capable and Sustainable’ published in June 2016; “At the same time, we cannot rule out the possibility that Russia in a given situation will consider the use of military force to be a relevant tool, also in the High North.” This statement highlights Nor-

way's concern over the eventuality of Russia triggering the 'Bastion defence' if it becomes embroiled in a conflict elsewhere. The 'Bastion defence', in short, involves the close protection of Russia's Northern Fleet, which includes its nuclear submarines, and Norway knows that, "broadly speaking, the bastion defence reaches northern parts of the Norwegian territory, the Barents Sea and the Norwegian Sea," as noted in 'Unified Effort', a report published by the Expert Commission on Norwegian Security and Defence Policy in 2015.

To protect itself Norway had already replaced by 2011 the Norwegian Navy's fleet of five small frigates with five 'Fridtjof Nansen' class frigates, which "are equipped to fight in all maritime warfare areas, anti-aircraft, at the surface and under water", according to the Navy's website. Manufactured by Navantia, and displacing 5,290t, the frigates are armed with an eight-cell mk41 vertical launch system for Raytheon's Evolved Sea Sparrow Missile (ESSM), two modules each with four launch tubes for Kongsberg's Naval Strike Missile and two twin magazine torpedo launchers for BAE Systems' Stingray lightweight torpedo. As of 2015, the frigates' capabilities have also been augmented with the acquisition of NHIndustries NH90 helicopters, of which seven have thus far been received; although only six of the 14 ordered rotorcraft were originally intended for anti-submarine warfare, a recent report published by Norway's defence research institute suggested all 14 be used to ensure full capability.

The fleet of six 'Ula' class submarines, capable of operating in the Arctic, are however reaching the end of their life-cycle; as such, in February 2017, Norway selected thyssenkrupp Marine Systems GmbH to build the new fleet of submarines based on the T212 design already in service with the German and Italian navies. A common contract should be signed by 2019 for delivery of the new submarines from the mid-2020s to 2030. Meanwhile, the 'Ula' class are undergoing an upgrade, which will see about 60 systems being modernised, including a new combat system integration infrastructure and sonars from Kongsberg and ITT Corporation electronic warfare equipment.



US

For all the US talk about Russia, the US Navy (USN) is surprisingly ill prepared for the eventuality of any type of tension or conflict flaring up in the Arctic region. In contrast with Canada, Norway and, to some extent, even Denmark, which are equipping their navies with capabilities designed to protect the country's sovereignty in Arctic waters, the USN has only a handful of ships, in the context of its significantly large fleet, capable of operating in the region.

This is undoubtedly due to the fact that, "as opposed to combat-related missions, Navy

forces are far more likely to be employed in the Arctic region in support of Coast Guard search and rescue, disaster relief, law enforcement, and other civil emergency/civil support operations," as stated in the 'US Navy Arctic Roadmap 2014-2030' published in February 2014. It is also the result of a national policy that looks upon the Arctic as a very stable region unlikely to witness a conflict any time soon; rather, based on policy documents such as the USN Arctic Roadmap or the 'Report to Congress on Strategy to Protect United States National Security Interests in the Arctic Region', published in December 2016, the US considers that the main issues it has to contend with in the Arctic relate to competing sovereignty claims with Canada, over the water surrounding its Arctic islands, and Russia, over the Northwest passage. The National Defence Strategy and the National Security Strategy published by President Trump's administration demonstrate that this is unlikely to change in the near future at policy level; neither document mentions the Arctic.

However, if the administration at large is overlooking the strategic importance of the Arctic, the USN is far from making the same mistake. The Office of Naval Research (ONR) already had a strategic interest in the region during the Cold War due to the presence of Russian submarines in Arctic waters; in the mid to late 1980s it funded substantial work on Arctic sea ice and Arctic Ocean acoustics for its relevance to submarine warfare. Indeed, according to the Stockholm International Peace Research Institute (SIPRI), "most of approximately 51 US nuclear attack submarines (but not the SSBNs) are known to be able to operate under the Arctic ice and break through the ice from below." Moreover, USN submarines regularly take part in Arctic exercises and the USN operates an Arctic Submarine Laboratory, which is responsible for developing and maintaining expertise in Arctic specific skills, knowledge, equipment and procedures to facilitate submarine operations in the region.

In an article published in *Military Review*, 'Why Alaska and the Arctic are Critical to the National Security of the United States', Colonel Michael J. Forsyth of the US Army writes: "Alaska is critical to the national security of the United States; however, we are not, as a nation, keeping pace with the rapidly changing security situation in the Arctic." Noting the im-

portance of the region in terms of trade routes and natural resources, Col. Forsyth goes on to indicate that, to be ready for eventual tensions emerging in the region, US Armed Forces should maintain and sustain a credible force in Alaska through force modernisation, regular military exercises and training to regain lost skills crucial to operating in such harsh environments.

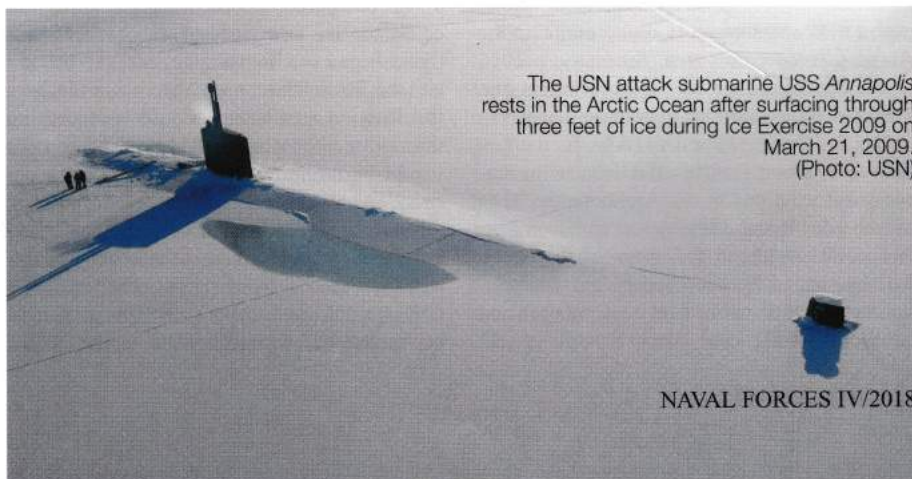
## Fire and Ice

This two part series has highlight the resurgence of the Arctic as a strategic region for regional coastal countries. Although to varying degrees, Russia's increasing military activity in Arctic waters, including the modernisation of its key strategic Northern Fleet, has been drawing attention and has triggered a modernisation of Arctic naval capabilities for most of the regional coastal states. While few experts believe that natural resources' increased availability due to melting Arctic ice will result in a regional conflict, many are cautious that it could become embroiled in a proxy conflict because of tensions elsewhere.

A new factor that may come to jostle established regional dynamics is China's growing interest in the Arctic. It is unknown whether its latest submarines will be capable of breaking ice, however the fact that last June the China National Nuclear Corporation has opened bids from domestic yards to build the country's first nuclear-powered icebreaker is a testament to its intentions to be active in Arctic waters. Indeed, over the past year China has openly stated its intentions to include a 'Polar Silk Road' in its 'Belt and Road Initiative', intending to increase its maritime exports through the region by building infrastructure.

It may therefore be time to wonder how relationships will play out, especially between Russia, China and the US. While some may argue that Russia and China could be a threat to the US, the reality is somewhat more complex, as noted by Mr Huebert: "We always make assumptions that China and Russia are best friends but the reality is that this changes regularly depending on issues at stake. China is much more of a threat to Russia than Western countries, when taking into consideration shared borders, economics and population." Only time, and tensions in other areas of the world, will be able to tell.

NAFO



The USN attack submarine USS Annapolis rests in the Arctic Ocean after surfacing through three feet of ice during Ice Exercise 2009 on March 21, 2009. (Photo: USN)

NAVAL FORCES IV/2018