

# STAR SHELL

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NAVAL ASSOCIATION OF CANADA

**Accelerating Submarine Procurement**

**Enhancing the AOPS?**

**The Academics of Applied History**

**Remembering Canada's War Dead**

**Remembering LCdr William King Lore**







# Starshell

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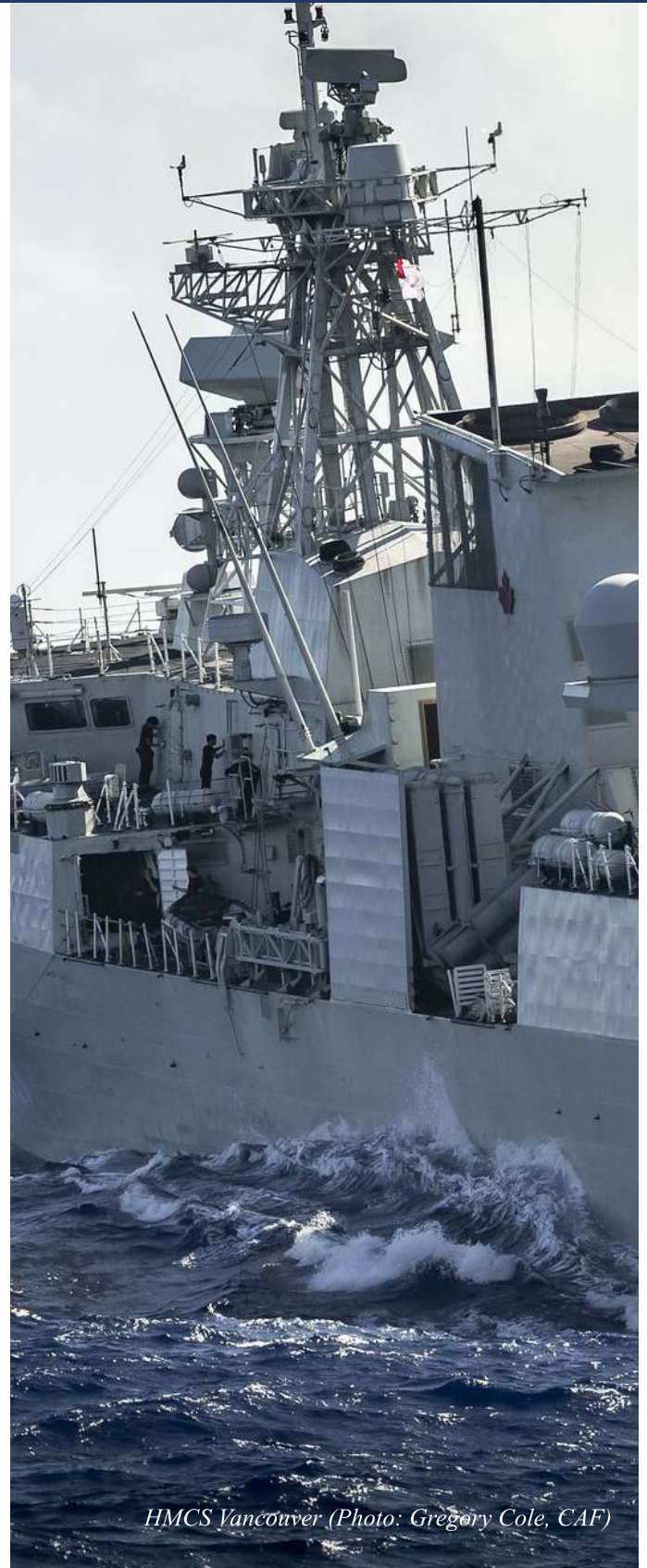
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## From the Bridge

**Bruce Belliveau**  
**President (NAC)**

Recently I returned from a tour of Vietnam and Cambodia. It was an incredible trip filled with historical visits, beautiful vistas, warm people and knowledgeable tour guides. So what does this have to do with the Naval Association of Canada you ask? Parts of this expedition included visits to many sites with accompanying stories that nobody should have to see or hear, yet, because they exist, we should all have to reflect on the failures of mankind. And most importantly, because it continues today in a world filled with violent clashes with the most vulnerable of the worlds' people at risk.

In Cambodia, we toured a killing field with a most knowledgeable guide, one who lived through and experienced the onslaught of the Khmer Rouge regime under Pol Pott. He was six years old in 1975 and, as usual, his parents left early in the morning to tend to their rice fields. Later that morning, the Khmer Rouge arrived and, as they had done across the country, they rounded up the people of the village and moved them to another part of the country. Our guide never saw his parents again and was unable to determine what had happened to them. This was a story to play out across the country. He survived and eventually made it to a refugee camp in Thailand and lives this day to tell his story. We were fortunate to have him describe the horrors of that time and how he and his siblings survived. He was able to describe in gruesome details the operation of the killing fields and the brutality of the Khmer Rouge. Over one third of the population died, the majority murdered for the mere fact they were educated. Why is this important to know? Because the rest of the world let it happen.

This story would be repeated elsewhere, Sudan, Rwanda and even in the current conflicts where those most vulnerable are left defenceless as others turn a blind eye. This is why organizations like the Naval Association of Canada and other like-minded organizations are so important today. In order for Canada to have influence in these situations (remember Lloyd Axworthy and the “Responsibility to Protect”) Canada can not only speak like a medium

power, but must act like one. Without a robust military to back them up, words mean little and promise nothing to the vulnerable.

In the latest Defence Policy Update, the Government of Canada has made a commitment for the future, but the future is now, and more needs to be done to ensure our sailors, soldiers and aviators have what they need for deterrence and operations abroad when necessary. The voice of the NAC has never been more important, and it should be a call to action to increase our membership, to engage with our local MP’s and to advocate to government to do the right thing. There are many priorities facing governments today, but in this ever-increasing instability across the globe, inaction is inexcusable.

We often speak to the term lessons learned. My fundamental belief is we are good at identifying lessons, seldom do we learn from them.

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# From the Ops Room

**Tim Addison, Naval Affairs**

## **A “Quick Look” at NAC’s upcoming Naval Affairs Paper by Director Naval Affairs**

The decline in Canada’s military and specifically naval capabilities is now well recognized across Canada. It did not happen overnight but is the result of successive governments not paying attention to world affairs from a defence and security perspective, instead relying on “soft power” initiatives as the solution to all the world’s disputes and relying on the largess of the United States as a protector of Canada’s interests. One critical outcome of this endemic indifference and inaction over the past fifty years has been the failure to recognize the RCN’s submarine service as a key component of Canadian defence and security, and one very much in need of renewal.

Last summer it was decided within NAC Naval Affairs that it was time to consider the defence and security situation and make a statement, in effect, that Canada, a nation that supports democracy, the rule of law, human rights and global peace and security, needs to get its house in order. Thus, in late November a group of Naval Association members with an interest in naval affairs and the future of the Royal Canadian Navy (RCN) gathered with colleagues from academia for a naval affairs workshop at the University of Calgary.

This group met to discuss a collective concern: while other countries have recognized the severity of the global security situation and have started bolstering their defence capabilities, Canada seems intent on letting its military continue to decay to a point of irrelevance. The first order of business at the

workshop was to review the current global situation. To highlight the current threats, consider the following. The war in Ukraine is now in its third year. Notwithstanding the support received from Allies, with the North Korean regime, Iran and China supporting Russia, the war has ground into a stalemate. The North Korea – Russia relationship has deepened with Russia pledging its "complete support" for North Korea in 2023. Meanwhile, North Korea continues to launch ballistic missiles as it continues its quest for a nuclear arsenal. Kim Jong-Un has warned the West that he would “launch a nuclear attack without hesitation” if provoked by his enemies. Similarly, Russia has deepened its relationship with China. Russian President Vladimir Putin has identified the West as Russia’s “enemy” and implied that Russia is fighting in Ukraine to defeat the West.

In the Indo-Pacific, Chinese aspirations for control of Taiwan are becoming more overt and their incursions into other nations’ territories for economic gain are increasing. President Xi Jinping has stated that China's "reunification" with Taiwan is inevitable and US Naval Intelligence has made an assessment that an invasion would occur by 2027. China continues to claim historic jurisdiction over almost all of the vast South China Sea, and since 2014 has built up tiny reefs and sandbars into artificial islands heavily fortified with missiles, runways and weapons systems. They have increased their rhetoric and their operations with unfounded claims that the west is encroaching on their territory. The Chinese People's Liberation Army (PLA) Navy continues to develop new and - improve upon existing - capabilities around aircraft carrier operations.



Pilots are now training in air to ground support missions that will be an enabler to taking and holding territories that China covets.

In the Middle East, Iran continues to develop a nuclear arsenal. Iran has also developed attack drones to support Russia in its war against Ukraine and is close to providing Moscow with surface-to-surface missiles. Recently we witnessed Iran attack Israel with missiles and drones. Although the attack was largely thwarted, it was the first direct attack, the previous ones being executed by proxies, and further worsens the security situation in the Middle East.

To summarize the global situation, the activities of Russia, China and North Korea all indicate that the world is close to a major meltdown of global peace and security. Canada and its allies appear to be fast approaching a period of conflict, where defending oneself after or against a hostile attack at sea, an attack from land, or offensive surface or anti-submarine warfare could become a reality. Russia's invasion of Ukraine and the Israeli-Hamas war are harbingers of future protracted conflict around the globe.

The workshop participants then turned to where Canada sits currently on the world stage. Frankly, for a G7 country and NATO member which, in the past, had commanded considerable respect, we are now well into the middle to back rows. It is obvious that while Canada is a maritime nation, only those who live within sight or smell of salt water recognize it as such. For the remainder of Canadians, it must be accepted that their priorities differ.<sup>1</sup> From an economic standpoint, whether they know it or not, Canadians rely heavily on goods which arrive in our major ports (Vancouver, Halifax and Montreal) to support our standard of living and as pre-cursors for manufacturing and food production. No one can ignore the fact that shipping costs have increased exponentially, just over the past year, largely because of the attacks on commercial shipping by Houthi rebels in Yemen.<sup>2</sup> Costs will continue to rise as global tension escalates.

Further, Canada is a medium power with three coastlines and a dependence on international ocean trade routes, in an ever-changing world in terms of threats to international peace and security, climate

change, the post-pandemic mindset of Canadians, economic challenges and Canadian demographics. Given the deteriorating world security situation, Canada needs a Navy not just because every other medium power with a coastline has a navy; it needs to possess the capability to protect its maritime approaches and resources on both traditional coasts, but also those in the Arctic which are becoming increasingly threatened, and to project power when necessary.

It was also assessed that future conflict or conflicts will occur with little to no warning. It will be another come as you are party, as was the situation for the first Gulf War. The Navy, always the first out the door in terms of a response, will have to achieve and maintain a readiness posture such that ships can be deployed within weeks, as compared to air or land forces. Accordingly, more resources should be directed towards maintaining that ability to respond.

A broad ranging discussion ensued on the state of our naval forces, their current warfighting capabilities, and their state of materiel readiness, some of which has been acknowledged in the recent Defence Policy Update (DPU), titled "Our North, Strong and Free". It is well known that the HALIFAX Class frigates are aging rapidly and the cost to maintain them is escalating year over year. The VICTORIA Class submarines are money sumps when comparing the days at sea versus cost of maintenance. The Harry DEWOLF Class Arctic & Offshore Patrol Vessels will be useful in some constabulary roles, but they are not combatants and should not be used as such. The KINGSTON Class Maritime Coastal Defence Vessels have been overused and should be replaced by a fleet of offshore patrol vessels. Additionally, the overall state of the fleet is out of balance in that there are too many lightly armed patrol vessels as compared to combatants.

The consensus was that having a surface fleet of even 15 major combatants and a subsurface capability of 4 to 8 submarines would not be sufficient to meet the possible threats that may require a Canadian military response in the coming decades. In effect, the RCN needs significantly more surface ships and submarines than currently planned to generate and maintain a high readiness task group on each coast. The real requirement could be met by doubling the

planned acquisition of destroyer/frigates, while to maintain continuous deployment of submarine forces for sea control or offensive operations in two theatres a force of a minimum of 12 but preferably 16 submarines will be required. Further, this fleet of major combatants should be supported by a minimum of six replenishment vessels and augmented by a number of patrol vessels on both coasts, with capabilities to patrol Arctic and traditional coastal waters.

The workshop discussion also included infrastructure, human resources and training which are all in critical states. It is well known that Canada is in a housing crisis and for those in the navy, on-base housing is in serious need of expansion and renewal. Fleet Maintenance Facilities are challenged to keep the ships at sea and personnel shortages across the Fleet have reached a point where operations are being impacted.

Beyond fleet and infrastructure renewal, the RCN must also address significant HR issues. They include:

- **Recruiting.** The RCN must be given control of recruiting for naval occupations. This would include development of plans for local recruiting campaigns in cities and towns where personnel were sourced in the past and focus on proactive engagement in high schools. The local Naval Reserve Divisions who already have established networks should be used to better advantage in addressing this issue.
- **Retention.** There are many things that can be fixed here, including on-base housing and the pay and benefits for non-commissioned members which needs to be increased to reduce the current pace of unforeseen releases.
- **Training.** Training programs for personnel for the new fleets of ships and eventually submarines must be developed. While much of this training will be for new “float, move, fight” systems across the navy, basic seamanship and familiarity with naval operations must continue. Ships taken out of service should be used as harbour training ships to support these activities. Cross training to the new Canadian Surface

Combatant will be key to the success of the future RCN.

The initial intent of the workshop was to review and discuss the RCN’s most current doctrinal publication, “Leadmark 2050” with a view to providing the RCN with thoughts for consideration for the next version. However, the outcome of the workshop was the realization that the world geopolitical and economic situation post pandemic requires a full re-evaluation of the environment in which Canada finds itself. Moreover, the RCN and the Government itself must “come clean” regarding the current state of our Navy. There is an overwhelming need to make substantive changes to weather what is fast approaching Canada as “a Perfect Storm”, in terms of multiple threat vectors, a critically weakened maritime force in terms of human resources, surface and subsurface platforms and shore infrastructure, and a dysfunctional procurement system.

While the recent DPU did acknowledge much of the current threat situation, there is a sense that the Government’s level of concern and commitment in terms of program spending on defence as outlined in the DPU still does not indicate the same level of commitment, particularly when it comes to the RCN’s requirements. New money to support the upkeep of the HALIFAX Class is a step in the right direction in the short term. However, the DPU does not address the pressing requirement for a submarine project to replace the VICTORIA Class as soon as possible, but not later than 2035, when the submarines will reach their end of life. Moreover, the maintenance of budget cuts of close to 1 billion dollars this year and next which were announced earlier this year demonstrate that the Government is not really committed to improving the situation, but is only paying lip service, again.

The final version of the Calgary Workshop document is very close to release. The end result will be a strategic assessment and a plea for government officials, both elected and unelected, to heed the NAC’s recommendations. Many other subjects were discussed in addition to those highlighted above. Some parts of the overall paper will be published independently to meet specific objectives. Shorter papers and briefing notes to address various issues will be generated as part of secondary activities



following publication of the main paper. The bottom line – the DPU was a step in the right direction, but there is much more work to be done when it comes to ensuring Canada’s security and prosperity in the coming decades and generating a new Royal Canadian Navy that is truly “Ready, Aye Ready” to do the business and support Canada as a bona-fide medium power.

matters are of concern of a mere 7 per cent of Canadians, while almost half say that the cost of groceries should be the top government priority, followed by inflation and interest rates (45 per cent), and access to affordable housing (39 per cent).

<sup>2</sup> Average worldwide costs of shipping a 40-foot container rose 23 percent in the week through January 18th to \$3,777, more than doubling in the past month in wake of Houthi Red Sea attacks. "Welcome to the new era of global sea power." *The Economist* (January 2024).

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## Notes

<sup>1</sup> The Globe and Mail (14 Feb 2023). Public attitudes are at the heart of Canada’s lacking defence spending. A recent Global News Ipsos poll showed that military



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*Vice-Admiral Slaars, Joint-Commander of the French Forces in the Indian Ocean*

*“Without your exceptional support, we simply could not have done this evacuation.”*

*Commander Johnson, Captain of the Royal Navy’s HMS Lancaster*

Combat support ship, Asterix, is the Royal Canadian Navy’s strategic enabler for long-range operational capability.

Already in 2023, she has been designated the US Navy’s At Sea Command Platform for Task Force Red Sea. Asterix supported international evacuation efforts in Sudan, working with French, UK and Spanish forces.

Asterix also supported the US, Australia and Japan in a multilateral exercise for a free and open Indo-Pacific. CSS Asterix has been flawlessly operated for the RCN by Federal Fleet Services since 2018.



# Murky Waters

## Canada's Many Shipbuilding Myths

Howard Smith and Ian Parker

The National Shipbuilding Strategy has been one of the most expensive and complex government initiatives in Canadian history. Recapitalizing the Coast Guard and Navy while rebuilding Canada's atrophied shipbuilding capacity has understandably taken years to deliver results. Yet, with ships now flowing from the yards, costs are increasing and a few are calling the program a "financial disaster." While the NSS is the most multi-faceted procurement program in our history, most popular discussion of it has been dangerously simplistic, leading to myths and misunderstandings. Those misunderstandings have, in turn, created a public narrative that has imperilled the entire program. A better conversation on shipbuilding and procurement means building a more nuanced understanding and avoiding simplistic pitfalls. To this end, here are some of those myths, busted.

### Myth 1: Building Outside Canada is Cheaper and Faster

Underlying the myth are numbers that are too often misunderstood, as well as false hope that Canada might receive unhindered access to vital technology from offshore vendors. The cost comparison figures do not always use equivalent vessels and this leads to misleading evidence. Such comparisons obviate including the overall through life vessel costs, the design modifications, the costs of converting different frequency and voltage power supplies from European or Asian standards to Canadian, or how foreign firms intend to recoup their non-recurring engineering costs and R&D when selling to a foreign nation.

The vital technology and supply chains baked into foreign procured ships are also not included in the simplistic cost comparisons. Equally a false assumption is made that Canada will enjoy unhindered access to sensitive Intellectual Property, without restriction or cost including updates through the vessels' lives.

It is assumed that existing foreign designs can be modified to accommodate essential Canadian operational requirements without additional cost or risk, that Canada's schedule can be achieved, and that there is spare capacity in foreign yards, most of which are controlled by foreign governments. Pundits opine that offshore shipyards will offer favoured customer pricing comparable to that provided to their own national governments. This is simply not true.

### Myth: The Secondary Benefits of the NSS Are Unimportant

The detractors of the NSS consistently ignore the direct benefits of developing modern shipyards with a skilled workforce. Moreover, the benefits of a sustainable national shipbuilding industry, in avoiding the additional costs of operating in boom-and-bust cycles, are largely overlooked.

The NSS creates sustainable employment to ensure that Canada continues to have responsive capacity in a strategic industry. This capacity extends to ship repair, maintenance, modifications, and alterations. Ships require continuous maintenance and need to be upgraded; a Canadian yard does more than build ships



HMCS Vancouver's CH-148 Cyclone helicopter flies near HMCS Ottawa, MV Asterix, and HMCS Vancouver (Photo: Gregory Cole, CAF)





– it adds value for decades in upkeep. Critics sometimes refer to shipbuilding as a ‘lunch bucket industry’ requiring a low skilled workforce operating in a declining sector. A recent visit to the NSS shipyards or even a cursory review of the NSS Annual Reports would quickly dispel such superficial criticism. Through the NSS and shipyards’ investments in workforce development and their Value Proposition commitments, a vital national capability has emerged that employs highly trained workers in the application of leading technologies. As of 31 December 2022, NSS shipyards had accrued over \$44.3 million in NSS VP obligations, and the value of approved and completed investments has exceeded \$46.6 million.

### **Myth: Building Warships isn’t all that Complicated**

Many of the early NSS cost estimates were inaccurate – and are expanding. This inflation results from several factors, none of which are straightforward. Unlike other defence procurement projects, which rely on off-the-shelf purchases, NSS projects are far more complex. These must take basic designs and alter them to meet Canada’s unique operational requirements, while delivering new infrastructure in several provinces and regions, and sophisticated training systems.

Fault finders rely upon early preliminary indicative estimates from DND and DFO as the basis for identifying cost overruns. Oftentimes these initial amounts are the numbers staked in the ground as a baseline of the project costs in the years that follow. In fact, such initial estimates are never intended to provide definitive project by project costs. They are prepared prior to DND or DFO setting the final concept of operations and before the basing locations are decided. This criticism, which commonly surrounds the CSC project, links this cost escalation to government mismanagement, uncompetitive Canadian labour, shipyard inefficiencies, imprecise build schedules, and ill-defined gold-plating of the operational requirements. In fact, the evolution of the project stems from a growing certainty on the government’s part of what these ships will look like and what they’re intended to do.

Criticism of the NSS rarely mentions the need to ensure Canada has effective forces and modern vessels to support our defence, security, and sovereignty requirements. As the NSS advances, let Canadians not forget that we preside over the world’s longest coastline, second largest continental shelf, and fifth largest exclusive economic zone containing vast sea life and natural resources, and all of which contribute to the standard of living we enjoy.

**Howard Smith** is a member of the NAC, having served as Vice-President and President of the Ottawa Branch. He was a Surface Ship Officer in the RCN serving in seagoing positions on both coasts and in staff assignments. He also served as a Director-General and Director on the Naval Staff, and as a Project Director in several major Crown Projects.

**Ian Parker** served 37 years in the RCN, at sea, in personnel and in force development. He commanded two HMC Ships, was a Director General and the Chief of Staff on the naval staff. He was with CFN Consultants for 12 years.



# Group Up!

## A Case For Accelerated Canadian Submarine Procurement

**Norman Jolin**

To anyone who has been following defence related media of late, it will come as no surprise to hear that Canada has an aging submarine fleet that is rapidly approaching the end of its service life. For those unfamiliar with the situation, the current fleet of four Victoria-class submarines were originally in service with the British Royal Navy, which decided to concentrate on a nuclear-powered submarine fleet in the 1990s, thereby causing their four conventionally powered patrol submarines to be prematurely retired

from service. These submarines were subsequently acquired by Canada in 1998, as a submarine capability life extension project, because the then in-service Canadian Oberon-class patrol submarines were at the end of their service lives. While the 2017 defence policy *Strong, Secure, Engaged*, committed to maintaining a submarine capability by modernizing the Victoria-class, it stopped short of announcing a replacement for these submarines, which are now all over 30 years old.

British name	Laid down	Launched	British service	Canadian name	Commissioned
<i>Upholder</i>	Nov 1983	Dec 1986	Jun 1990 - Apr 1994	<i>Chicoutimi</i>	Sep 2015
<i>Unseen</i>	Aug 1987	Nov 1989	Jul 1991 - Apr 1994	<i>Victoria</i>	Dec 2000
<i>Ursula</i>	Aug 1987	Feb 1991	May 1992 - Jun 1994	<i>Corner Brook</i>	Jun 2003
<i>Unicorn</i>	Mar 1989	Apr 1992	Jun 1993 - Oct 1994	<i>Windsor</i>	Oct 2003



Twenty-six years later, on April 8, 2024, the Government of Canada released its long-anticipated defence policy update entitled “*Our North, Strong and Free: A Renewed Vision for Canada’s Defence.*” The defence policy update states to: “**explore options for renewing and expanding our submarine fleet** to enable the Royal Canadian Navy to project a persistent deterrent on all three coasts, with under-ice capable, conventionally powered submarines.”<sup>1</sup> Notably, in addition to renewal, the policy implies fleet expansion; specifically more than a one for one replacement of the four Victoria-class, of which at least eight submarines are considered to be necessary to maintain simultaneous availability on both coasts.

Where these vessels will come from is an important question, particularly since international submarine building capacity is approaching its limits. This is because a large number of nations are undergoing submarine build programmes, including some that are investing in a submarine capability for the first time. Canada’s situation is further complicated by a lack of a domestic submarine building capability and the fact that it lacks both the time and resources to build the necessary infrastructure, as all four Victoria-class will have to be retired by the end of the next decade. This leads to the inescapable conclusion that a replacement submarine will have to be built offshore.

At the same time, the costs to maintain and upgrade the legacy submarines are continuing to increase exponentially, in direct competition with the necessary resources needed to extend the service lives of the Halifax-class frigates. Simply put, the RCN fleet of the next decade is in a fragile situation and any efforts to reduce fiscal pressures, whilst

maintaining a minimum of operational readiness, must be exploited.

In review of key Allies in similar circumstances, the Dutch have decided to upgrade only two of four Walrus-class submarines and concentrate on a replacement project, which was recently announced to be the French conventional Barracuda design.<sup>2</sup> Much like the Victoria-class, the Dutch submarines are of a similar size, entered service in the 1990s and are all over 30 years old.

The Dutch decision to cut their losses by minimizing expenditures on legacy submarines, while concentrating on fleet replacement is worthy of further investigation in the Canadian context.<sup>3</sup> Specifically, by accelerating the procurement of a class of modern conventional submarines, Canada could:

- Reduce the number of Victoria-class submarines, thereby focusing maintenance on fewer units to maximize availability and alleviate the need for some future extended docking work periods.
- Reassess, and where appropriate de-scope, Victoria-class Modernization (VCM) projects needed in a smaller submarine fleet that will be in the process of transition to a completely different class of submarine.
- Cease the Victoria-In-Service-Support Contract II (VISSC II) negotiations and stay with the legacy arrangement as the fleet transitions to a new build and a future ISS organization. At the same time, engage with industry for a future In Service Support Contractor (ISSC) in coordination with the selected submarine manufacturer.

Submarine name	Laid down	Launched	Commissioned	Status
<i>Walrus</i>	Oct 1979	Sep 1989	Mar 1992	Decommissioned
<i>Zeeleeuw</i>	Sep 1981	Jun 1987	Apr 1990	In service
<i>Dolfijn</i>	Jun 1986	Apr 1990	Jan 1993	In service
<i>Briunvis</i>	Apr 1988	Apr 1992	Jul 1994	In upgrade

HMCS Victoria returns home through the Straits of Juan De Fuca, from operations with the United States Navy (USN) on February 26, 2015 (Photo: Zachariah Stopa)



## Whither A Replacement Submarine?

At first blush, going immediately to the procurement of new submarine would be seen by many as an easy solution, however, there are some significant factors that demand consideration before proceeding. Notably, what exactly are Canada's requirements for a submarine, and can they be achieved before the Victoria-class must be retired from service? In *Our North, Strong and Free*, the thrust is clearly on defence of North America, of which the protection of our interests in the Arctic predominate – this means that a future Canadian submarine capability must have the range and endurance to get to, and then operate in, Canada's North, which fortuitously also gives it the ability to operate worldwide.<sup>4</sup>

While a definitive list of High-Level Mandatory Requirements (HLMRs) are not public at this time, the following points have been openly discussed in public fora:

- The first submarine of the class must be delivered by 2035.
- The submarine must be conventionally powered (diesel electric).<sup>5</sup>
- The submarine must be capable of extended unsupported ocean-going transits that demand significant range & endurance.<sup>6</sup>
- The submarine must be capable of operating on the Arctic ice-edge (with short under-ice forays) while meeting environmental regulations, notably the IMO Polar Code.<sup>7</sup>

## The Candidates

The following conventional submarine designs are understood to be under consideration (in alphabetical order):

- **French Barracuda-class** – this 3300-ton submarine design has been selected to be built for the Netherlands, it is a conventional (diesel



electric) derivative of the nuclear-powered Suffren-class, as the French navy only operates nuclear-powered submarines. Will the proposed design be able to meet Canadian requirements as it is unproven and a modification of an SSN design – not a conventional submarine design?

- **German Type 216-class** – this 4000-ton design was proposed for the original Australian submarine replacement project (subsequently cancelled) and has never been built. With the exception of the 2400-ton Type 800 Israeli Dolphin-class submarines and the 2200-ton Type 218 Singaporean Invincible-class, all other tkMS submarines have been 2000 tons or less.
- **German Type 212 A CD-class** – tkMS have started building the first of the 3000-ton Type 212A CD-class for the Norwegian & German navies. They are apparently offering an extended version entitled Type 212A CDE for Canada.
- **Japanese Taigei-class** – a 4000-ton submarine which is in service with the Japanese Maritime Self Defence Force.
- **Korean KSS III-class** – a 3700-ton submarine, which is in service in the ROK Navy as part of an eventual nine submarine class.
- **Spanish Isaac Peral-class (S 80 Plus)** – the first of class of this 3400-ton submarine was recently commissioned into service after a lengthy design and build process that encountered significant difficulties.
- **Swedish Blekinge-class** – currently the design is less than 2000 tons – this submarine is the first of its class and is currently in build. However, as part of the competition for the Dutch submarine replacement project, SAAB offered a larger Type C71 design (enlarged expeditionary derivative of the Blekinge-class, displacing over 3000 tons). Of note, the Swedish have designed large displacement submarines in the past, the Västergötland-class submarine was the parent design for the 3400-ton Australian Collins-class submarines.

To follow-on, which builders can reliably build a conventional submarine of this size in time to meet the Canadian time requirement of 2035? The following information is displayed in order of published build times; however, it is noteworthy that the metrics used to define these timings may not be consistent with allied anticipated delivery timelines.

- **Japan: Taigei-class (JS *Jingei*)** - Laid down: April 2020, Delivered: March 2024 – 49 months.
- **Korea: KSS III-class (ROKS *Ahn Mu*)** - Laid down: April 2018, Delivered: April 2023 – 60 months.
- **Sweden: Blekinge-class (HSwMS *Blekinge*)** - Laid down: June 2022, Expected: 2027/28 – 66 months.
- **Germany: Type 212A CD (NN)** - laid down: September 2023, Expected: 2029 – 72 months.<sup>8</sup>
- **France: Barracuda-class SSK (HNLMS *Orka*)** - The first two submarines of the proposed 3300-ton Orka-class for the Royal Netherlands Navy are expected to be delivered 120 months from contract award.<sup>9</sup>
- **Spain: S80-Plus-class (ESPS *Isaac Peral*)** - Laid down: December 2007, Delivered: November 2023 – 188 months.

## Procurement

The procurement method, to be determined by Public Services & Procurement Canada (PSPC), in conjunction with Innovation, Science and Economic Development Canada (ISED), will set the framework for how the procurement is to be achieved. Historically, Canada has usually demanded a competition for both build and long-term support (separate contracts), using an Invitation to Qualify (ITQ) process to reduce the number of authorized bidders. With this, a procurement timeline (in years)<sup>10</sup> would normally be:

- D - delivery of first submarine into service
- D - 1 year – post build trials and acceptance
- D - 8 years – commence construction
- D - 10 years – Contract Award and design

review

- D - 12 years – Request for Proposal issued
- D - 14 years – Invitation to Qualify issued
- D - 16 years – Requests for Information/Industry Engagement
- D - 18 years – Memoranda to Cabinet and Project approval

Based on the above timeline, it is clear the decision to replace these submarines is considerably overdue. Moreover, if one were to optimistically assume that the 18-year procurement clock could start in 2024, it would see the first submarine delivered, at the earliest, to Canada in 2042, with the subsequent loss of a national submarine capability, as all four Victoria-class must be retired by the end of the 2030s. In short, the historical procurement process will simply not work in this case and Canada will have to consider other procurement avenues, such as:

- Sole source using an Advanced Contract Award Notice (ACAN), a process similar to the CC-117 Globemaster Procurement Project in 2006.<sup>11</sup>
- An ITQ process where only one qualified supplier was identified, a process similar to the Strategic Tanker Capability Project in 2021.<sup>12</sup>

In summary, as Canada's current submarine fleet will retire from service by the end of the next decade, there is limited time left to build and deliver a replacement, that is on average about eight years. To maintain a submarine capability, the first new vessel must be delivered by 2035, which means that Canada must be in contract with a proven builder by 2027 at the latest – less than three years from now. Furthermore, as Canada has always procured submarines from an off-shore builder, the reality of the situation precludes any suggestion that Canada could put in place the necessary specialized infrastructure and expertise to build submarines in Canada – there is simply not enough time.

Now is the time to accelerate the process by selecting an in-service submarine design that can meet Canadian requirements, without significant modifications, and be delivered by a proven 'on time' submarine builder. As can be seen, there are not a lot of options available to Canada - in both design and delivery time. The use of a





rapid ITQ process to determine the best option for Canada should then be followed by immediate procurement action. These actions would not only expedite the replacement of an ageing capability with a submarine designed to meet national requirements, as articulated in *Our North, Strong and Free*, but also free up precious fiscal resources dedicated to maintaining an ever increasingly expensive legacy fleet.

## Notes

<sup>1</sup> Canada, *Our North, Strong and Free* (April 2024).

<sup>2</sup> “Netherlands Picks France’s Naval Group over Saab for Submarine Deal,” *The Defence Post* (April 2024)

<sup>3</sup> Rudy Ruitenber, “Dutch navy starts retiring submarines, but successor still unknown,” *Defence News* (October 2023)

<sup>4</sup> CDA Institute, “Statement on the Defence Policy Update” (April 12, 2024).

<sup>5</sup> One option that will be examined is AIP technology for extending range. Wikipedia, “Air-independent propulsion.”

<sup>6</sup> 2023 briefing by the RCN Director Naval Requirements on the Canadian Patrol Submarine project indicated the requirement for the

submarine to operate in an ocean-going environment and be able to transit 3500 nautical miles (nm) to a patrol area, patrol for three weeks and return without refuelling or resupply

<sup>7</sup> IMO, Polar Code Infographic.

<sup>8</sup> The only previous submarines built by Germany of over 2000 tons submerged displacement are the Israeli Dolphin class. The latest (INS *Rahav*) was laid down in 2008 and delivered in Jan 2016 – 96 months.

<sup>9</sup> This is a nuclear-powered submarine. Naval Group has indicated that delivery for first conventionally-powered version of the Barracuda-class submarine for the Dutch navy will be 10 years (120 months) from contact award.

<sup>10</sup> Assumed an arbitrary 8-year (96 month) build to deliver timeframe

<sup>11</sup> Government of Canada, “CC-177 Globemaster procurement project.”

<sup>12</sup> Government of Canada, “Strategic Tanker Transport Capability project.”

**Capt(N) [Ret’d] Norman Jolin** served 37 years in the Royal Canadian Navy, in a career that saw service across the entire spectrum of maritime operations in both ships and submarines, including command of the Halifax-class frigate HMCS *Montréal*. His final appointments were outside Canada in support of NATO and defence diplomacy, notably as the Naval Adviser to the UK and the Defence Attaché to Denmark. In 2017 he joined CFN Consultants specializing in support to naval and maritime issues



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# An AOPS that can Fight?

## Patrol Ships for an Increasingly Dangerous World

**Adam Lajeunesse**

This article first appeared in the *Canadian Military Journal* in March 2024

Russia's invasion of Ukraine marks an important historical turning point, reframing the global security dynamic and changing the way Western nations perceive their world and defence obligations. The shift in Canadian foreign and security policy has been somewhat predictable: grand statements of purpose, coupled with parsimony and hesitation. Addressing the House of Commons in March 2022, Finance Minister Chrystia Freeland delivered what the CBC described as a wartime speech. "Putin and his henchmen are war criminals," declared the Minister. "The world's democracies – including our own – can be safe only once the Russian tyrant and his armies are entirely vanquished. The world's dictators should never mistake our civility for pacifism. We know that freedom does not come for free, and that peace is guaranteed only by our readiness to fight for it."<sup>1</sup> Yet, nearly two years into the conflict, the cost of rebuilding the Canadian Armed forces has led to second thoughts, with the Department of National Defence now contributing to government-wide budget cuts.

The contemporary security situation requires a more robust Royal Canadian Navy – which has seen its responsibilities expand to include longer and more frequent forward deployments, taxing the fleet's limited number of ageing hulls. Yet, there is very little relief expected in the near term. The Canadian Surface Combatant program – which will provide the Navy with its next generation surface warships – is not scheduled to deliver the first vessel until the early 2030s.<sup>2</sup> The Navy's submarine replacement project is in the exploratory stages and is at least a decade and a half from replacement boats, if they are built at all. Add onto this complex and lengthy delivery schedule a government seeking to limit defence spending wherever possible and creative approaches to enhancing RCN capability on a budget appear desirable. In this light, it is worth exploring an old debate over the role of the Arctic and Offshore Patrol Ships (AOPS).<sup>3</sup> Namely, can the country get more value from these platforms by enhancing their combat power and expanding their capabilities?



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These vessels were certainly never intended to be warships and are not designed for combat, however, as NATO finds itself facing an openly expansionist Russia, alongside a more aggressive China, a broader understanding of the AOPS' mission is probably in order. This notion was first explored in depth by Rob Huebert in a 2015 article in the Canadian Naval Review. There, Huebert asked whether the AOPS, "as currently configured" really provided Canada with the "necessary security in the Arctic." Given their limited combat capability, Huebert asked, could the ships be better outfitted to hedge against potential security crises that might emerge over the next 25 to 40 years? His answer was that such "enhancements" – including a larger gun and modular weapons systems – were both possible and necessary to provide a "more robust combat capability."<sup>4</sup> In making that suggestion, Huebert was responding to Whitney Lackenbauer, who had penned an article in the previous edition of the Naval Review, arguing that such militarization was wasteful and inappropriate, given the low probability of military conflict in the Arctic. Instead,

Lackenbauer suggested that the existing constabulary philosophy remained appropriate, writing: "Canada's whole-of-government approach, designed to anticipate, prepare for and respond to non-combat security and safety scenarios, should not be hijacked by a retreat to Cold War thinking."<sup>5</sup> Yet, with NATO now potentially facing a new Cold War, Huebert's warnings seemed prescient and a reconsideration of the AOPS' role may to be in order.

The AOPS were conceived and designed as constabulary vessels with a whole-of-government support mission.<sup>6</sup> Never intended to be combatants, the ships are armed with a small, BAE Mk 38 25mm gun, enough for patrol duties focused on civilian traffic though hardly sufficient for higher-intensity conflict with a state adversary. This concept of employment made sense and stemmed not from any naivety on the RCN's part of the dangers lurking in the global geopolitical system, but from a sensible appreciation of the regional threat environment and the RCN's priorities and requirements. In the Arctic, Canadian defence policy has consistently accepted a



security environment defined by low-intensity safety and security threats, requiring light armaments for constabulary duties only. This was always sensible policy and, even considering the current war in Ukraine, that assessment probably remains an accurate perception of the threats that the RCN will encounter in the North. Recent assertions that conflict with Russia might spill over into the Canadian Arctic, in a way that leads to combat operations, are almost certainly exaggerations.<sup>7</sup> As one Canadian Army officer quipped about the Arctic in the 1940s: “there’s nowhere to go and nothing to do once you get there.”<sup>8</sup> Simply put, there is still nothing of military strategic value in the North American Arctic that might tempt a Russian incursion, or lead to naval combat along the Northwest Passage.

The AOPS’ light armament and constabulary design was also a result of the Navy’s limited resources. Combat systems were minimal not because the RCN was unconcerned by the hard security threats on the horizon but because it needed to concentrate its resources to meet those threats. Adding vertical launch systems, a large-calibre gun, and integrated fire control radars would have been an expensive luxury for a ship whose heavy ice-strengthening, civilian construction standards, and limited speed would always keep it from being a capable warship. Instead, the design philosophy was to keep the vessels

as inexpensive and focused as possible to husband resources for the Canadian Surface Combatants. These next generation frigates are the purpose-built warships that will provide the Navy with an uncompromised combat capability. Adding combat systems to the AOPS could have reduced funding for the CSC program, ironically reducing the RCN’s potential combat power over the longer term. Yet, those ships are behind schedule, with a decade to go before delivery. The Russian threat to Canada and NATO exists today.

Despite his general prescience, Huebert’s focus on the AOPS as potential Arctic warships remains misguided. Indeed, a very common problem with discussions of the AOPS’ capabilities is that they are rarely considered outside of their Arctic employment and are too often boxed into that regional framework. While the AOPS will probably never be more than constabulary ships in the North, they are still large, capable platforms well suited to global operations in the offshore environment. In this often-overlooked global role they can do more. To return to Huebert’s original assessment, the RCN could invest a modest amount to turn the AOPS into vessels with capabilities more in line with comparable allied Offshore Patrol Vessels (OPV).<sup>9</sup> Rather than Arctic-focused combatants, the AOPS should be seen as adaptable OPVs capable of defending the sea lines



*Commander Nicole Robichaud, Lieutenant-Commander, Dustin Allen and Coxswain Steven in front of HMCS MARGARET BROOKE, in the Labrador Sea (Photo: Taylor Congdon, CAF)*

of communication and performing a wider variety of defence tasks – while also possessing an Arctic capability.

In an extended great power contest with Russia, the AOPS' most effective contribution will still be as support and patrol ships. As their designers intended, they can provide the RCN with a cheap alternative for domestic security operations. In this, they can relieve RCN frigates of patrol duty, coastal surveillance, fisheries enforcement, and other constabulary functions, allowing those ships to forward deploy on higher-risk missions. With ample storage and workspace, as well as a 20-tonne crane, the AOPS also represent a valuable platform for defence research and systems deployment, laying fixed SOSUS arrays and distributing sonar buoys – much as the country's Auxiliary Oiler Replenishment Vessels (AORs) did in the 1970s and 1980s.

In the event of outright war, Canada and its allies will need to sweep the seas of enemy flagged merchant vessels, both to deny them to the adversary and to prevent those ships from conducting surveillance or other hybrid warfare tasks. While not armed for high-end combat, the AOPS' 25mm gun will enable the ships to comfortably monitor or interdict Russian 'civilian' vessels functioning as Electronic Intelligence (ELINT) collection assets. During the Cold War, the Soviet Navy deployed these Auxiliary, General, Intelligence vessels (AGIs) on a regular basis, to the point that they became a common feature in North American waters. As is the case with China today, Soviet fishing vessels were also deployed as hybrid state assets, causing the RCN serious concern throughout the Cold War, and particularly during the Cuban missile crisis. The Russian Navy has not relied as heavily on such assets, but they do still appear, and may grow in number as geopolitical tensions rise.<sup>10</sup> Surveillance of such vessels would be an important and time-consuming task and the AOPS will offer the RCN a more cost-efficient solution than a frigate.<sup>11</sup> During a conflict, the RCN would also require an armed presence to interdict such hybrid threats, not only ELINT vessels, but unarmed trawlers and hybrid warfare vessels tasked with laying mines or severing crucial trans-Atlantic cables.<sup>12</sup>

Interdicting hybrid threats and patrolling the offshore in periods of heightened tension or war may require

more than the ship's current light armament. In wartime, an AOPS might also encounter hostile surface raiders on the high seas. Huebert recommended modular weapons, like the StanFlex system employed on Danish patrol ships. Integrated modular design is, however, no longer possible with the AOPS program being as far along as it is, and the RCN is not about to undertake hull redesigns on existing ships. The key to realistically adding capability is selecting weapons and sensors that don't require major modification to the hull, such as cutting into the deck or running new wires.<sup>13</sup> This could include containerized systems, which promise a more limited combat capability but can be more easily 'plugged into' the ship.

Several navies are already experimenting with this option. The Russian Navy's AOPS equivalent – the 6,800-ton ice-strengthened Ivan Papanin-class – is reportedly being equipped with the mobile Kalibr-K cruise missile system. This system is not fully integrated, instead deployed in three standard containers, which include a vertical launcher, fire control system, combat control, navigation and communications equipment, as well as the necessary power supply.<sup>14</sup> Western navies are working with similar containerized systems. In 2019, Rear Admiral Paul Halton (Royal Navy), outlined a British study to "enhance the lethality" its River-class offshore patrol ships, with containerized weapons systems, requiring no significant renovations to the ship.<sup>15</sup> The US Navy (USN) is likewise looking at similar capabilities to support its broader program of 'distributed lethality,' which includes adding combat capabilities to ships previously considered non-combatants. The Marine Corps is experimenting with Naval Strike Missiles aboard amphibious warfare ships, while the USN's 'Ghost Fleet Overlord' program recently test-fired an SM-6 Standard Missile from a modular launch cell onboard the unmanned surface vessel USV Ranger.<sup>16</sup> That system comes in a container sized box with four standard Mk 41 cells.<sup>17</sup>

The most popular surface warfare weapon being deployed in this manner is the Naval Strike Missile, which is now one of the standard anti-shipping weapons in the US Navy. This, and similar weapons, carries its own guidance system based on GPS, inertial navigation, and passive electro-optical/infrared sensors to independently acquire targets, or



receive targeting information from outside sources, permitting deployment on vessels like the AOPS.<sup>18</sup> Indeed, the extended range of modern antiship missiles means that most would never be fired at a target within radar range of the ship itself. These are not necessarily one-size-fits all additions. The height of a Mk 41 VLS, for instance, may make it an awkward fit, while a high-end weapon like the SM6 would require a new fire control system, representing a major addition. Still, the move towards containerization offers clear opportunities if the right systems can be adapted to the AOPS' space and layout.

Instead of relying on onboard radars, such over the horizon strike systems could also be supported by the ships' helicopter or embarked drones. A variety of UAVs are already being tested by Western navies for precisely this purpose.<sup>19</sup> Drones are also regularly proving their utility as spotting assets in combat across Ukraine. The most dramatic of these may have been the April 2022 sinking of the cruiser Moskva by two Ukrainian Neptune missiles, supposedly with drone support.<sup>20</sup> While the RCN's drone program remain in its infancy, some experiments have at least begun,<sup>21</sup> while a sense of necessity could cut through bureaucracy to allow the Navy to quickly acquire more mature technologies from its allies.

Systems such as these offer a potential offensive punch against an adversary's hybrid surface ships, though would never transform the AOPS into front-line warships. Because the vessels are built to commercial standards, they will always be less resilient in combat, making survivability and damage control a serious issue. There are also no defensive weapons aboard an AOPS capable of fending off missile attacks from enemy warships – or even strikes from Russian ELINT or hybrid vessels, which may themselves be carrying containerized anti-shipping missiles.

Given this persistent weakness, the AOPS would never be deployable into warzones. They would, however, be able to manage the hybrid security/defence tasks in the North Atlantic and the North American littorals, where hostile combatants are unlikely to materialize. In support of that mission-set, a defensive system such as the American SeaRAM could also be installed with minimal

additions of new sensors and combat management systems. This kind of point-defence missile system is designed to work against the kind of limited missile attack from hybrid vessels, that an AOPS may experience in the relatively uncontested waters of the North Atlantic or Pacific.

Adding an anti-submarine warfare (ASW) capability to the AOPS is another consideration which may arise in extreme situations. Dating back to 1939, the RCN's focus has been on ASW, with the postwar Navy born from its escort duties convoying vessels across the North Atlantic. Today, the fleet's Halifax-class frigates are optimized for that same task. A renewed cold war – or its sudden escalation into combat – would once again see the Navy stretched to guard those same sea lines of communication. Slow and noisy, the AOPS are not built for such tasks.<sup>22</sup> The ship has a top speed of 17 knots and poor maneuverability in the open ocean compared to most warships, limited by a hull form designed to operate in ice.<sup>23</sup> In every respect, the AOPS make poor submarine hunters or convoy escorts. Still, necessity tends to push aside questions of optimization; the corvettes used by the RCN to fight the Battle of the Atlantic were hardly ideal platforms.

As an ASW platform, the ships' main asset is its ample deck space, from which it can launch a CH-148 Cyclone helicopter. A versatile and highly capable ASW aircraft, the Cyclone can carry two lightweight torpedoes, passive and active sonobuoys, as well as a powerful low-frequency tethered active sonar – a system that has successfully tracked Victoria-class submarines during wargames.<sup>24</sup> While that capability is a significant strength, it is far from optimized for combat. While AOPS were designed to land a heavy aircraft like the Cyclone, it was assumed that standard operations would employ only a light helicopter for ice-reconnaissance. That, and the pressing need to keep costs low, meant that the ships were built for, but not with, the Recovery, Assist, Secure and Traverse system (RAST) or Helicopter Hauldown and Rapid Securing Device (HHRSD) systems needed to handle large aircraft in anything greater than sea state three.<sup>25</sup> The ships also carry only enough aviation fuel for 71 hours of flight operations.<sup>26</sup> Turning this ASW capability into something usable in a crisis would be possible, but require some upgrades.

Outside the embarked helicopter, an AOPS' onboard ASW capabilities are non-existent. That too could evolve with additional bolt-on or containerized systems. That possibility was at least hinted at by HMCS Harry DeWolf during Operation Nanook 2021. While operating in the Northwest Passage, the ship hosted a Defence Research and Development Canada (DRDC) team, which tested a Towed Reelable Active-Passive Sonar (TRAPS), a compact, low-cost, active and passive, variable depth ASW sonar.<sup>27</sup> The ship still lacks (and will continue to lack) an organic torpedo capability, or the ability to defeat – or evade – an incoming torpedo. As such the AOPS will never be sub-hunters, and engaging a hostile submarine would be a last resort. They may, however, be able to provide another layer of detection to the broader allied operating picture – from a distance.

In monitoring the underwater environment, AOPS could leverage new advances in autonomous underwater vehicles (AUV), launched from the ships' 20-ton crane. These systems are evolving rapidly, with many designed as extended sonar systems, tying information back into a mothership. Canadian designed AUVs have already demonstrated ranges in excess of 2,000 km,<sup>28</sup> and an AOPS could serve as a hub for a distributed network of AUV and surface 'wave gliders,' recovering these assets and transmitting data to other platforms, like Canadian or allied submarines. NATO navies have been testing this concept for years and a system of this type was put on display during the 2020 Dynamic Manta exercise in the Mediterranean. There, NATO's Centre for Maritime Research and Experimentation employed AUV and surface sensor systems in a mock hunting exercise to locate 'Russian' submarines in coordination with Canadian and allied surface ships. The communications and command challenges of using extended range AUV remain considerable, given that such drones must surface in order to make contact and receive instructions. As such, this remains a longer-term possibility, contingent on new research and development, though a promising one.

While not designed for fitted weapons systems or drones, AOPS are flexible ships. Each has room for up to six sea containers, with tiered deck space that would allow for the deployment of these systems without encroaching on the ship's helicopter flight deck. Built to accommodate containerized



*HMCS MARGARET BROOKE taken from Danish helicopter Westland Lynx MK 90B, N-978 during Operation NANOOK off the coast of Newfoundland and Labrador Canada - Atlantic Ocean, August 5th, 2022 (Photo: Kuzma, CAF)*

laboratories and hydrographic equipment, the ships have all the connection points for power that could readily accommodate the new additions without invasive renovations or electrical work. Many of these new weapon systems or sensors would need to be adapted but integration would be facilitated by the versatile nature of the ships themselves.

Enhancing the AOPS' surface warfare and ASW capabilities would also require additional training and a larger crew, since each new system requires dedicated operators. Luckily, the AOPS are large vessels with space to support other government partners and scientific personnel. In a crisis, or on missions requiring additional capabilities, these add-on teams could be supported with relative ease. Assembling these teams would be more difficult given the RCNs current personnel shortages. Indeed, the human resources component may prove more challenging than the technical adaptations – though that is a separate subject entirely.



Finally, managing containerized systems requires a sophisticated Command Management System (CMS) and, in this, the AOPS are somewhat overbuilt to requirements. The ships are fitted with the CMS 330, a lighter version of the same system used by the Halifax-class frigates. This system collects information through radars and sensors, converts that data into actionable intelligence and directs ships' systems to engage and respond to threats. Tying the physical combat systems into this would require major adjustments, but not a fundamental redesign.<sup>29</sup>

The use of the AOPS for kinetic operations, or even security duties against state adversaries, was never a consideration during their design or build. Adaptability in rapidly changing circumstances is necessary however and the Navy has proven that flexibility in the past. The Kingston-class (MCDV) patrol ships, for instance, have certainly evolved well beyond their original design. They are now globally deployable, with MCDVs being sent south on Operation Caribe, to Europe on Operation Reassurance, and Africa on Operation Projection – tasks that were not envisioned when the ships were launched.

Augmenting the AOPS to include improved defensive and interdiction capabilities would not fundamentally alter their role. These are patrol ships, ill-suited to combat operations; however, renewed great power threats to Canada demand that we broaden our understanding of those patrol duties. While the AOPS will never be frontline warships, a more robust capability would expand their purpose to encompass a wider swath of the security spectrum, from pure constabulary safety and security operations to the defence of North American waters from hybrid threats and – in an extreme crisis – even engaging hostile vessels and tracking submarines. The ships will always be constabulary patrol vessels, but strategic upgrades can help them to carry out that role in a more contested environment, with what one might call 'constabulary+' capabilities.

Adapting existing ships also fits into the government's newfound need to reduce spending and find efficiencies. While containerized systems and upgrades are expensive, they would likely deliver far more capability faster, and at a lower price, than new hulls. While the AOPS were never designed for such

duties, and certainly not optimized for dealing with state opponents, a degree of flexibility is clearly required as Canada and its allies adjust to an increasingly dangerous security environment. The AOPS can play a role in meeting that new challenge and that might require thinking outside the traditional Arctic box.

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<sup>2</sup> Lee Berthiaume, "No Plans to Change Warships Despite Cost Warning, Top Official Says," CBC News (April 4, 2021).

<sup>3</sup> Technically the AOPS are AOPV (Vessels); however, the use of "ships" has worked its way into the vernacular and will be used throughout.

<sup>4</sup> Rob Huebert, "The Case for a More Combat-Capable Arctic Offshore Patrol Ship," Canadian Naval Review 10:3 (2015), 4.

<sup>5</sup> Whitney Lackenbauer, "Canadian Security and Safety in the Arctic: Probable Challenges, Practical Responsibilities," Canadian Naval Review 10:2 (Fall 2014).

<sup>6</sup> On the design history see: Adam Lajeunesse, "Canada's Arctic Offshore and Patrol Ships (AOPS)," 2.

<sup>7</sup> This argument has reappeared in the media in the wake of the Ukrainian invasion. See for instance: Bryan Passifiume, "We're effectively a border state with Russia': Defending Canada's far-north called key to protecting sovereignty," National Post (March 11, 2022).

<sup>8</sup> Wayne C. Thompson, *The World Today Series 2013: Canada* (Lanham: Rowman and Littlefield Publishing Group, 2013), 174

<sup>9</sup> On this see for instance: the UK's River-class and New Zealand's Protector-class patrol ships.

<sup>10</sup> David F. Winkler, "Russian Spy Ship off Delaware

Brings Back Cold War Memories,” Naval Historical Foundation (February 15, 2017).

<sup>11</sup> While AOPS’ operating costs are not public, frigates are ten times more expensive to operate than the smaller MCDV patrol craft. While the AOPS are larger vessels with a standard crew of 65 (vs. 47 from an MCDV) they will still be lower than a frigate. On the rough MCDV to frigate estimate see: Interview with Vice-Admiral Art McDonald Commander of the Royal Canadian Navy, Canadian Defence Review (August 19, 2020).

<sup>12</sup> Severing internet cables is a threat gaining more attention in recent years. See for instance: Justin Sherman, “Cord-Cutting, Russian Style: Could the Kremlin Sever Global Internet Cables?” Atlantic Council (January 21, 2022).

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<sup>14</sup> Dorian Archus, “Russia to Arm Icebreaking Patrol Ships with Kalibr Missile,” Naval Post (October 16, 2021).

<sup>15</sup> Commander Operations, Rear Admiral Paul Halton speaking in: “Enhancing the Royal Navy’s batch II OPVs,” Navy Lookout (February 4, 2020).

<sup>16</sup> Joseph Trevithick, “U.S. Navy Amphibious Warship to Deploy With Anti-Ship Missiles Next Year,” The Drive (January 11, 2021) and Brian O’Rourke, “Ghost Fleet Fires Real Missile,” Proceedings 147:10:1424 (October 2021).

<sup>17</sup> Ibid.

<sup>18</sup> Axe, “In an Emergency, The Royal Navy Might Have No Choice.”

<sup>19</sup> See for instance: Oriana Pawlyk, “An MQ-9 Drone

Is Teaming Up with a Navy Warship to Obliterate Targets at Sea,” Military.com (April 22, 2021).

<sup>20</sup> David Hambling, “Ukraine’s Bayraktar Drone Helped Sink Russian Flagship Moskva,” Forbes (April 14, 2022).

<sup>21</sup> This conclusion comes from sources familiar with the tests.

<sup>22</sup> Modern frigates have carefully designed hull forms that limit their acoustic signatures and quiet engine noise.

<sup>23</sup> Rob Huebert, “The Case for a More Combat-Capable Arctic Offshore Patrol Ship.”

<sup>24</sup> John Jacob, “Wings of the Fleet: Maritime Helicopter on Operations with HMCS Winnipeg,” Lookout (December 2, 2021) and “Canada’s CH-148 Cyclones: 4th Time Lucky?” Defence Industry Daily (December 7, 2021).

<sup>25</sup> J.D. Forbes, “AOPS Operating Outside the Arctic: Recommendations on Employing the Harry DeWolfe-Class Arctic/Offshore Patrol,” Canadian Forces College paper (2017), 7.

<sup>26</sup> Notes in: “AOPS Evolution of the Statement of Requirements,” PowerPoint presentation to 2010 SNAME Annual Meeting (November 4, 2010).

<sup>27</sup> Lisa Tubb, “New Sonar System Tested on Board Harry DeWolf,” Lookout (December 7, 2021).

<sup>28</sup> Active sonar 500mhz is a lot of power that the UAV likely will not have. Presentation by Alex Johnson, Cellula Robotics, Deep Blue Conference (October 29, 2021).

<sup>29</sup> This opinion comes from conversations with retired RCN personnel familiar with the AOPS design.

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# Students at Sea

This March, a group of 25 students from St. Francis Xavier University travelled from Antigonish Nova Scotia to Halifax to take part in the Royal Canadian Navy's annual Student at Sea program. This initiative, co-organized by StFX and the RCN's Strategic Outreach team, is part of a broader effort to connect Canada's future leaders to their navy and give young Canadians a taste of what life in the Navy is like.

The students boarded the AOPV HMCS *Harry DeWolf* early in the morning and joined the ship for a

day at sea. While there, they joined the crew for a weapons and firefighting demonstration and a tour of the facilities. Improving Canadians' understanding of their navy, and the role it plays in the country's safety and prosperity, is an important part of sustaining the service and building its future fleet. Students at Sea is a step towards showing Canada's future leaders what the Navy does and how its work shapes the country.







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# The Academics of Applied History, Nuclear Submarines and the AUKUS agreement

## Notes from The McMullen Naval History Symposium

Jason Delaney

This past September marked the full “in-person” return of the McMullen Naval History Symposium. Hosted by the United States Naval Academy in Annapolis, Maryland, the symposium is considered by many to be the premier international naval history conference. Papers presented focus on maritime conflicts and major wars; however, it is also a venue to discuss more recent events and draw on historical knowledge to inform contemporary issues. In essence, it is a forum for what is called ‘applied history’ – the study of the past to inform current or future situations.

One such panel was set up to examine nuclear submarine procurement efforts by medium-sized allied navies during the early Cold War period. The purpose was to present material that may help to better understand the recent announcement of the Australian, United Kingdom, United States (AUKUS) agreement. The AUKUS initiative is, in part, driven by plans to extend the decades-old bilateral UK-US nuclear submarine technology sharing arrangement to the Royal Australian Navy (RAN) in response to growing security concerns in the Indo-Pacific region. The panel brought together historians from the Netherlands, Australia and Canada with a chair and commentator from the US Naval War College and US Navy Staff.

The idea for the panel was the product of informal discussions between Dr. Sarandis “Randy” Papadopoulos, Strategic Analyst with the U.S. Navy Staff and former historian to the Secretary of the Navy in dialogue with Dr. Anselm van der Peet of the Netherlands Institute of Military History. The concept was one thought of in reference to the present-day

initiatives mentioned above and titled: *Preludes to AUKUS: SSNs in the Royal Australian, Royal Canadian and Royal Netherlands Navies*. The hope was to establish historical context for what is happening within the allied force structure at present day to enlighten or perhaps presage the current steps outlined in the AUKUS agreement.

In Dr. Papadopoulos’s own words, “... nuclear submarines constitute components of six navies. Over the past two generations, however, three other services have attempted to build or acquire nuclear attack submarines, most recently under 2021’s so-called “AUKUS” international agreement.” He goes on to point out that the papers submitted to the panel touch upon questions of alliance diplomacy, budgets, technology and exchange of information throughout the 1950s.” Underlying the academics is the very real attempt to understand the implications of Australia possibly completing a “road not taken” or more appropriately, “a road that could not have been taken” during the 1950s and into the 1960s. If the AUKUS initiative is successful, Australia will be accomplishing what comparable allied navies remain prohibited from achieving to this present day.

### The Royal Netherlands Navy

Dr. van der Peet began with his paper, *High Ambition or Operational Necessity? Dutch Plans for the Acquisition of Nuclear Attack Submarines, 1956-1972*. Here he outlines early attempts to acquire nuclear attack submarines for the Royal Netherlands Navy (RNLN). At the time, the RNLN understood that to continue to operate in the highest echelons of

NATO's Allied Command Atlantic (ACLANT), it was necessary to possess nuclear attack submarines.

The paper opens with the background of the RNLN from 1900 to 1950, however, between 1956 and 1960, it especially feared 'missing the boat' as an anti-submarine warfare (ASW) navy, given the US and Britain were developing their nuclear submarine programs. National efforts with a group of civil institutions were gradually replaced by Dutch Admiralty attempts to seek support from the United States. Negotiations with Washington failed in 1960 due to a lack of budget and an unwillingness on the part of the US to share Restricted Data information on coveted nuclear submarine technology. Subsequent American counter proposals and alternatives included supplying the blueprints of the advanced conventional submarine, USS *Barbel*. Budget and security issues predominated these early discussions, with the RNLN retaining hope until mid-1970 of gaining American knowledge, British logistical support and sufficient budget of its own for four nuclear-propelled

submarines.

The Dutch state believed its indigenous talent could, with American help, build nuclear-powered submarines. The political and naval leadership in the Hague thought their acceptance of U.S. nuclear weapons would ease the way to nuclear propulsion. In the end, however, US resistance to transferring information and technology, alongside the expense of the program, killed the chance for a Netherlands SSN force in the 1950s.

Of note is the question of whether national prestige or operational need drove the nation's choice of nuclear-powered submarines in the first place. The answer is probably a mix, but the pressure of the Soviet threat and the introduction of nuclear propulsion for submarines was an essential part of why the Netherlands needed to leap forward in its anti-submarine capabilities.

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## The Royal Canadian Navy

As for the Royal Canadian Navy (RCN), I was given the opportunity to present research conducted for volume three of the official history of the Royal Canadian Navy. The paper and presentation title: *On the Edge of Hubris: the 1959 Canadian Nuclear Attack Submarine Program*, explains the earliest attempt to acquire nuclear submarines in the mid-1950s before the RCN even had its own submarine service. Although some of the Naval Staff files from the period are still kept under “restricted access” at Library and Archives Canada, I was able to have one relevant file declassified for the purpose of telling this story.

At the centre of this early effort was the drive to develop nuclear fission for warship propulsion in parallel to advances within the United States. Like the Royal Netherlands Navy, there were those within the RCN technical services that understood that to be relevant within the NATO alliance, the RCN must pursue nuclear propulsion technology. The Naval Board supported this initiative, however, like the Dutch experience, any investigations into developing the technology were complicated and, in fact, blocked by US regulations governing the exchange of atomic information.

The Canadian challenge was comparable to the Dutch as Canada already possessed domestic expertise with respect to nuclear technology; but, Canada also had a wild card: ample amounts of the necessary raw material to make it all happen – *Uranium!* As a service experienced in anti-submarine warfare, the RCN wanted its own subsurface force and sought the leap forward to the most advanced technology integrated into the Generation II nuclear attack submarine (SSN) - USS *Skipjack*. The impetus for making this jump originated within the navy’s Technical Services Branch, which, innocuously, pursued nuclear propulsion technology in and of itself regardless of the platform. Gaining such a capability would have kept the RCN on pace with American and British fleet developments. Unfortunately, resistance to the idea came from domestic opposition to submarines as well as anything nuclear used for

military purpose. Regardless of the navy’s enthusiasm and Canada’s industrial potential in the matter, the Diefenbaker government was not interested, and neither were the Canadian people at the time.

The unique element of this story is the willingness to partner with a domestic nuclear agency: Atomic Energy of Canada Limited (AECL) to achieve this goal. Perhaps surprisingly even to Canadians today, Canada possesses a highly developed nuclear industry, both in terms of building reactors and producing medical isotopes. This would seemingly place Canada within a reasonable position to produce warship powerplants, however, this was never to be the “road taken.” Combined with a refusal on the part of the Canadian government to develop a domestic submarine building capacity, Canada now has a long way to go in both submarine production and nuclear propulsion development if it were ever to be able to produce its own nuclear submarines.

## The Royal Australian Navy

The Australian story was presented by Justin Burke, PhD Candidate from Macquarie University, Sydney titled: *Nuclear Reaction: Submarines, AUKUS and Naval Diplomacy*. In this paper, Justin points out that although submarines are designed and operated under the premiss of silence, stealth and surprise, the Royal Australian Navy has promoted them as tools of naval diplomacy on exercises and port visits around the Pacific Region. The question is then raised, “What will become of port visits for vessels that don’t require refuelling?” He continues with stating that Australia’s second most frequent submarine exercise partner, New Zealand, has had a longstanding prohibition on nuclear-powered vessels. His paper examines how the planned transition from conventional to nuclear-powered submarines under the AUKUS initiative might change Australia’s naval diplomatic practices. And with the AUKUS initiative, Australians are being asked to absorb a multi-billion-dollar, decades-long commitment to nuclear submarines.

Presently, Australia is the only one of the three nations mentioned above in a position to accomplish

what was not possible 70 years ago. Backed by the pair of nations that have successfully shared nuclear propulsion technology, Australia is poised to take the “road not taken” because it has built the capacity, earned the trust and is in a unique regional alliance security position. Burke asks, however, whether Australia’s adoption of nuclear-powered vessels, sponsored by Great Britain and the United States, will force changes in how Australia’s submarines are utilized.

## Comments

Although Canada, The Netherlands and Australia have comparable navies, only Australia is being offered the invitation to the “exclusive” nuclear submarine club. What can be discerned from the presentations and discussions is that there is merit to understanding the historical context of technology sharing and alliance relationships with respect to proprietary nuclear submarine technology as it relates to the current AUKUS initiative. The panel was set up to shed historical context on the relationships of three medium-sized allied navies that attempted “the road not taken.” Presently, one navy is poised to step off on that path and there are many questions as to why and at what cost?

During the early Cold War Period, each of the nations discussed were in a unique geostrategic position *vis-à-vis* the NATO alliance. The Netherlands was a European middle-power, Australia was on the other side of the world and Canada stood in the way of US nuclear submarine operations in the Arctic as it pursued northern territorial sovereignty. The latter consideration is something that is extremely significant to this story but could not be fully

examined within the limits of the proceedings.

The one main point that became clear is that there is similarity in the Dutch and Canadian experience and that the future use of nuclear submarines by Australia remains less understood at this early stage. Indeed, what must be added to the discussion is that only the Netherlands and Australia went on to build their own submarine construction capability, albeit with conventionally powered submarines. This provides a starting point and important building block to any nuclear program. With the new strategic imperative in the Indo-Pacific region combined with the fact that Australia has fought through building its own indigenous submarine construction capacity means the next logical step is a strategic partnership and capability sharing.

In the end, the return of the McMullen symposium has provided the valuable service of informing the subject of discussion. Providing historical context to the current initiative, allows us to better understand the AUKUS agreement within complex alliance relationships through the process of “applied history.” During the early Cold War, it made sense for the US to partner with the UK because the RN was already developing a capability and Britain was the declining maritime power as the US was the future one after the Second World War. They had a common enemy during the Cold War period and a partnership was a wise choice if not for geographic considerations alone. Due to the current security concerns in the Indo-Pacific region, Australia now has the strategic rationale and it possesses submarine building expertise to allow a partnership to move forward. Given this, the next logical choice was to be invited into the closely guarded nuclear submarine fraternity.

Lieutenant(N) Jason Delaney is a staff historian with the Canadian Armed Forces. He is a reserve Maritime Surface and Sub-surface (MARS) officer on active duty with DHH and holds a Master of Arts degree from the University of Waterloo (1999). Delaney’s work covers various topics, including procurement projects, Canadian maritime forces involvement in the Cuban Missile Crisis, early Cold War naval operations, and the history of Canadian Forces unification. He is on the naval history team writing volume III of the official history of the RCN and publishes regularly in the *Canadian Naval Review*.





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# Remembering Canada's Naval War Dead

Dr. Richard Gimblett, MSC CD, RCN (ret'd)



## The Halifax Memorial of the Commonwealth War Graves Commission (CWGC) in Point Pleasant Park

With the annual Battle of the Atlantic commemorations soon upon us, I have had occasion to note that this year is the 80th anniversary of the losses, amongst too many others, of HMC Ships *Athabaskan* (29 April) and *Skeena* (25 October). That pair strike me as unique, in that the subsequent burial of their ships' companies resulted in the only two out of hundreds of Commonwealth War Grave Cemeteries (CWGC) which host a significant communal representation of the Royal Canadian Navy (RCN) – that is, large numbers of a ship's company killed and interred together. Why that should be so has led me to some reflections on the subject.

In the brief period between when I first retired from the Navy (as in when I took off my uniform) in the summer of 2001, and before I became the RCN Command Historian as a civilian public servant in late 2006, amongst various activities, I fell in with a private company conducting small-group tours of the Canadian battlefields of Northwest Europe and Italy. An integral part of the package was daily visits to a military cemetery of one or



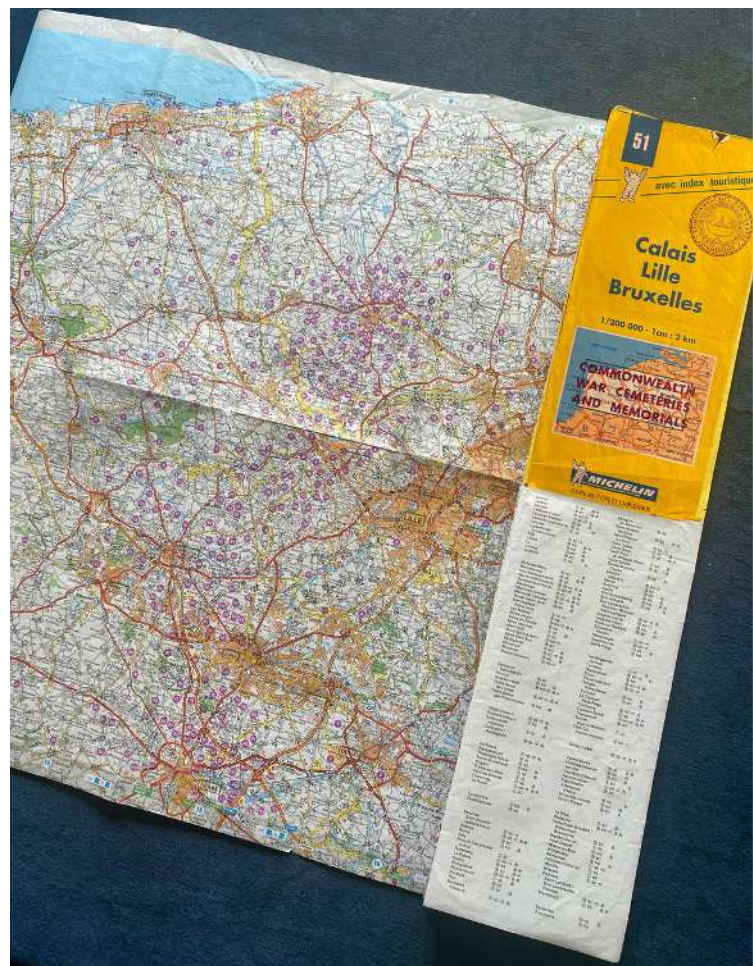
more of the combatants – the focus naturally was on Canadian sites, which for the world wars typically are organized as a component of the Commonwealth War Graves Commission (CWGC) covering also the British, Australian, Newfoundland (a separate Dominion at the time of the Great War) and Indian forces, but our visits included also the French and Americans, and Germans.

This approach offered a number of avenues for comparison. One immediate impression is that each nationality projects an almost stereotypical character trait in the way they lay out their war dead. Most readers will be familiar with the row-upon-row of headstones in Commonwealth cemeteries – sometimes covering vast acres – each adorned with a characteristic Cross of Sacrifice and subtly decorated with “English gardens” of flowers and shrubs. For their part, the secular French typically have a massive cathedral-like mausoleum in the midst of theirs, with a cross for each individual soldier. The Americans are a blend of the British and French, while the Germans went for mounded mass graves surrounded by plantings of grand oak shade trees, giving the place a solemn sense of grief and loss. (We explore these themes in-depth in the pair of *In the Footsteps* books I did with Angus Brown: *The Canadian Corps, 1914-1918* (2006) and *First Canadian Army, 1942-1945* (2009).)

The Commonwealth War Graves Commission objective of burying the dead as close as possible to where they fell makes it possible upon closer observation to note differences amongst our own three services. The Army of course is the focus of the iconic example described above, of the vast acreages of headstones. The well-known Michelin Tire company has produced a road map of northwest Europe overlaid with purple dots marking the various cemetery locations for the First World War, making it possible even today to define the trench lines by the swath of purple running from Ypres-Passchendaele in Belgium southward through Vimy and Arras down to the Somme. No such overlay has been done for the Second World War, but if one should come to pass, it would be distinguished by two very different features: one line of dots spread farther apart and running in a curving arc from Normandy swinging around past

Paris, up through those First World War lines, and into Holland; and another showing the experience of the Royal Canadian Air Force as a scattering of dots literally all over the place, typically marking where a bomber was shot down and the crew is buried in their small little groupings, often in isolated local churchyard cemeteries.

**Michelin road map with CWGC overlay, extending from the English Channel at the top, through Ieper (Ypres) down to Arras and including Vimy Ridge**



But of the RCN? In a word, nothing. Which could seem like an oversight until you think of it – with the vast majority of the more than 2000 Canadian naval war dead being lost at sea, going down in their ships



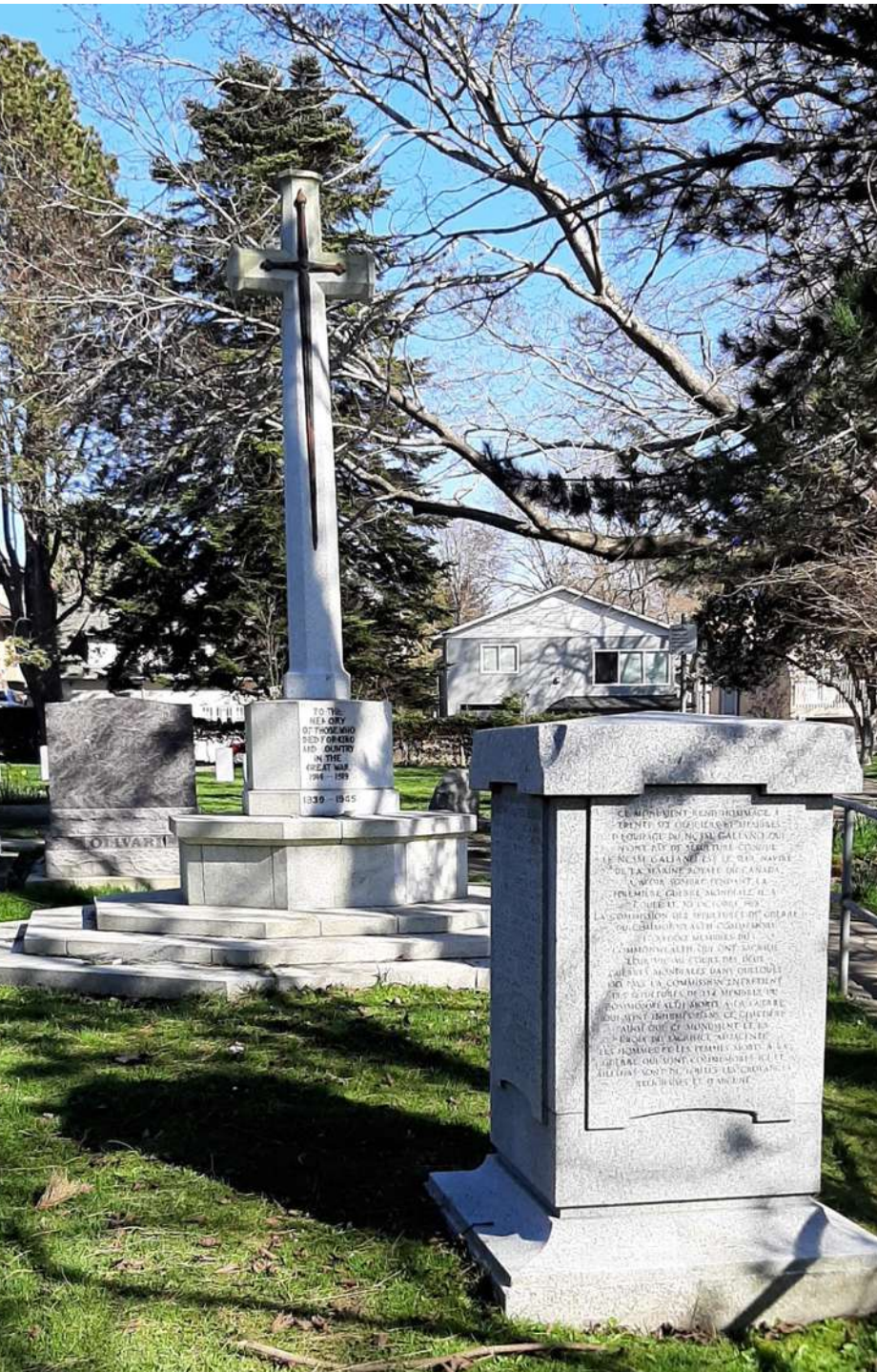
“with no known grave,” there were no remains to bury “close to where they fell.”

That is why, instead, the Commonwealth War Graves Commission raised a series of Naval Crosses of Sacrifice, one at each of the several major ports used by the British and Commonwealth navies, the bases of the crosses being surrounded by panels listing those lost within that approximate vicinity or area, “with no known grave.” The best example in Canada is the Halifax Memorial in Point Pleasant Park, where a great granite cross 12-metres high (pictured at the

opening of this article) stands above an octagonal base on which are mounted two dozen panels listing the 3,267 Canadian and Newfoundland sailors and soldiers who died on the North Atlantic in the World Wars. An additional 39 are listed on the Victoria Naval Memorial in the CWGC section of that city’s Ross Bay Cemetery, covering the Pacific theatre and comprising mostly the 36 officers and crew onboard HMCS *Galiano* when that ship foundered with all hands on 30 October 1918, incidentally the RCN’s only warship lost in the First World War.

### The Victoria Naval Memorial in Ross Bay Cemetery (image courtesy Jan Drent)

But as alluded to at the opening of this article, there are the two Canadian exceptions to the point, both incidentally far from the proximity of any of the Naval Cross Memorials. One is the Fossvogur Commonwealth War Grave Cemetery in Reykjavik, Iceland, in which are buried 14 of the sailors who drowned when the original River-class destroyer HMCS *Skeena* dragged her anchor and was wrecked in a gale on 25 October 1944 (a 15th body was never recovered). I raise it first, as it has a personal connection – the local Sea Cadet Corps in Port Hope where I now live is named for that Second World War destroyer, and the officers and cadets were instrumental in helping to establish a separate monument on desolate Videy Island right near where she grounded. I finally had the occasion in the summer of 2022 to pay my respects there, and also at the actual CWGC cemetery located a couple of miles away in the south end of the city. Fully 206 servicemen are buried in Fossvogur, mostly soldiers and airmen stationed in Iceland during the war. The 14 Skeenas are interred together in two neat rows, a group location which caused the padre who was present at the burial to recall years later, that he “had never seen so large a hole in all his time.”





**The *Skeena* monument on Videy Island and the original interment of the *Skeena* dead in Fossvogur Cemerary (York University Archives, Toronto Telegram fonds, ASC61739)**

Imagine then the size of the hole for the only other example of a communal mass burial of Canadian sailors – that for the Tribal-class destroyer HMCS *Athabaskan*, sunk in the early morning of 29 April 1944 in an inshore night action against German warships off the Ile de Blatz on the north coast of Brittany, France. Of the 128 men killed, 88 bodies were recovered by rescue teams or when they washed ashore; 60 of them are buried in the communal cemetery of the closest nearby village of Plouescat, in which a section has been given over to the CWGC – 35 of their headstones have names on the markers, but the other 25 could not be identified (as a side-note, it is a shame that, with all our modern advances in genetic analysis that no effort has been undertaken to identify those sailors, surely an objective within reach of DND's Casualty Identification Program, given we know who they are).

**(Below) The two neat rows of Skeenas in Fossvogur today – 6 at the farthest end of the first row (the closest 6 are unrelated RCAF) and the other 8 in the second row**







## The Two Rows of Athabaskans in Plouescat cemetery

These headstones also are in two rows, much longer ones, and the one backing onto the stone wall marking the southwest boundary of the cemetery is literally quite awesome – 44 headstones only a couple of inches apart, in one long row. The second row in front of it, with the remaining 16, is more in the standard War Graves Commission pattern, with a couple of feet between the stones. But overall, the effect is one of awe.

Those two RCN ship losses in the Second World War – together covering the gamut of the immortal words in the Naval Prayer that we in times past would be reciting on Battle of the Atlantic Sunday, lost as they were to “the violence of the enemy and ... the dangers of the sea” – are to my knowledge, the only examples of communal mass burials for Canadian

sailors. I’m willing to be corrected – in my world we call this “research,” throwing out some random factoid as if it’s the gospel truth, knowing that someone will be able to raise their hand and say “yes, but....”

Before readers rush to their keyboards, however, let me review a few other related cases....

Clearly, the criteria to have the possibility for mass burials would be for a ship loss to have occurred near land, from which it would have been possible to recover bodies. I should note here that a good number of bodies indeed were collected out at sea, but if killed in the middle of the ocean some days from the next port, understandably they tended to be “committed to the deep” in solemn individual ceremonies soon after the action.

One truly heart-rending landward case was the fire in Ostende Harbour on Valentine’s Day 1945 that



witnessed the destruction of the 29th MTB Flotilla, destroying its dozen motor torpedo boats, and killing 61 sailors, 26 of them RCN and 35 British. Most of their bodies, however, were burned beyond recognition, with the result that of those 26 Canadians, only 5 have graves with a headstone in the nearby cemeteries, 3 in Oostende and 2 in Adegem, Belgium. The remainder are named on the Halifax Memorial.

The final example from the Battle of the Atlantic was the sinking of HMCS *Esquimalt*. This Bangor-class minesweeper was the last Canadian warship lost in the Second World War, torpedoed by U-190 in the Halifax approaches on 16 April 1945. 44 men died in the explosion or of exposure in the water waiting to be rescued. Of the 16 recovered bodies that were identifiable, only one is buried in nearby Camp Hill military cemetery – and him it appears only because

he had no known kin. The remains of all the others were returned home for burial by their families, it being possible within the country to do so, and of course the “unknowns” are named on the Halifax Memorial.

For something like a communal mass burial in Canada, we have to go back to the First World War, when 21 Canadian sailors were killed in the Halifax Explosion on 6 December 1917. Seven of them died instantly because they were onboard the *Mont Blanc*, trying to put out the fire, and as such are listed on the Halifax Memorial. Of those killed ashore, only 6 are buried together, in St John’s Cemetery in Halifax’s North End. It’s a little-known site that I hate to admit I’ve never visited – indeed, never gave a thought to it until doing the research for this piece – but I shall make a point of going there next time I am in Halifax.



**The Canadian naval dead of the First World War “with no known grave” – including the 7 killed onboard the *Mont Blanc*.**

Another that I have not yet visited is not significant for the numbers interred, but rather its location as the farthest from Canada. Yokohama War Cemetery in Japan is the final resting place for the 3 sailors from HMCS *Iroquois* – our only casualties from the Korean War – killed together by the same enemy shell that hit their turret on 2 October 1952. The RCN news magazine *Crowsnest* for December 1952 has an interesting article, “HMCS *Iroquois* – The Aftermath,” reporting the details of the action through to the committal; the caption of a photograph in that article, reproduced here, provides some insight to wartime procedure.

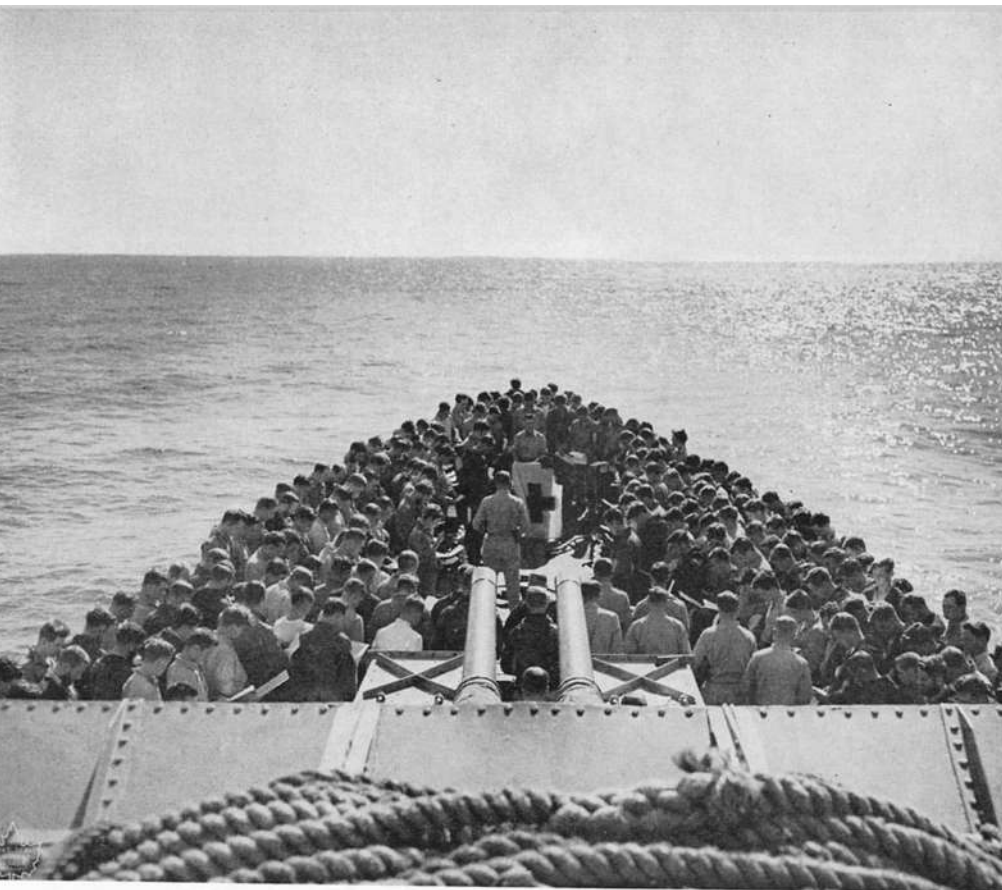
## From the December 1952 number of the RCN magazine *Crowsnest*

The final example that I will bring to your attention is another that I have had the honour of visiting – Brookwood Military Cemetery just southwest of London. It is a sprawling location covering 37 acres, much like those of the First World War in France and Belgium. There are only 5 Canadian sailors buried there from the Second World War, and they all died at different times from disease or accidents, tragic individual losses in the wartime service of our country, but their graves are scattered throughout the complex, and not the object of this discussion.

Rather, I was there to pay my respects to the 7 Canadian sailors who are buried there together, interestingly from two separate peacetime accidents in English waters: 3 from the then-newly-built

helicopter-carrying destroyer HMCS *Nipigon* killed in a fire in the JP-5 Handling Room on 18 October 1965, joined almost four years to the day later by 4 from the Restigouche-class destroyer-escort HMCS *Kootenay*. *Kootenay* was the first operational destroyer in which I served in the early-1980s (by then she had been converted to “Improved / IRE” configuration). A dozen years before I joined her, on 23 October 1969, the starboard gearbox exploded while doing a full-power trial in the English Channel, killing 9 sailors and injuring another 53. It remains the worst peacetime disaster suffered by the Royal Canadian Navy, and likely will prove to be the last ever communal burial of Canadian military personnel. That is because the decision was taken at the time to

follow the wartime practice of burying the dead close to where they fell – ergo the 4 buried in Brookwood, with another 4 committed to the deep in the Channel; the 9th sailor died of a heart attack just a day out of Halifax, and as such is buried in Canada. However, the decision not to repatriate their remains for burial by family back home sparked a real controversy that eventually resulted in the significant change in policy that the remains of all our military personnel killed abroad will be returned to Canada. And that has evolved over the years into the practice that they are flown into the air base in Trenton for transfer to Toronto along the little stretch of Highway 401 now memorialised as “the Highway of Heroes” that passes through Port Hope. The first Canadian sailor to make that particular final journey was Petty Officer Craig Blake, a clearance diver killed by an improvised explosive device in Afghanistan on the eve of the Navy’s Centennial on 3 May 2010, the anniversary of which falls fittingly close to Battle of the Atlantic Sunday.



At sea off the east coast of Korea, the ship's company of HMCS *Iroquois* held a service of remembrance for three shipmates who were killed six days previously when the destroyer was hit by a shell from a communist shore battery. Led by Captain William M. Landymore, the service took place on the same day the three Canadians were buried in the Commonwealth Cemetery at Yokohama, Japan. The *Iroquois* paused during her patrol to hold the service not far from where the action took place. (*IR-195*).



**A Screenshot from the 'For Posterity's Sake' website showing the section of Brookwood cemetery hosting the Nipigons and Kootenays, with a closeup of the headstone for CPO1 Vaino Partanen, the Chief ERA in Kootenay.**

It is fitting also to close in observing that 29 April marks another anniversary, of the crash in 2020 of Stalker 2-2, a Cyclone helicopter flying off HMCS Fredericton in the Mediterranean Sea, killing all 4 RCAF aircrew and 2 embarked RCN sailors. They are the latest Canadians to die at sea in the service of our country, and we know they won't be the last. But we can be quite confident that Fossvogur and Plouescat will remain unique as the only communal mass burials for the Royal Canadian Navy.



Headstone for CPO1 Vaino Partanen



Headstones for graves of Kootenay and Nipigon casualties in the Brookwood Military Cemetery

Richard Gimblett was the command historian of the Royal Canadian Navy (2006-18). As an officer in the navy (1975-2001) he served in ships of various classes on both coasts. Following an appointment as combat officer of HMCS *Protecteur* for operations in the Persian Gulf in 1991, he co-authored the official account of that conflict. He edited a pair of commemorative volumes to mark the Navy's centennial in 2010, and is a contributor to the multi-volume official history of the RCN. He lives in Port Hope, Ontario, and is a past president of the Canadian Nautical Research Society.

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# The Admirals' Medal

VICTORIA, BC -Retired Coast Guard Captain, David (Duke) Snider of Victoria, Past President of the Nautical Institute of Canada was presented “The Admirals’ Medal,” on Thursday, March 28th during the Vancouver Island Branch of the Navy Association of Canada luncheon. The award recognizes his contribution to the safety of shipping in Canada’s far North.

The Commander Maritime Forces Pacific, Rear Admiral Christopher Robinson made the presentation along with the Chairman of the Award Steering Committee, retired Vice Admiral Ron Buck.

Established in 1985, in conjunction with the 75th

anniversary of the Naval Service of Canada, the Admirals’ Medal is bestowed upon individual Canadians in recognition of their outstanding achievements in the advancement of maritime affairs in Canada. Named for Rear-Admirals George Stephens and Victor Brodeur and Vice-Admiral Rollo Mainguy, the silver medal is awarded annually for outstanding achievement in the areas of maritime-related science, technology and academic studies or for the application of practical maritime skills warranting special recognition. In his address, retired VAdm Buck said, “This is a prestigious award exemplified by past selectees.” Captain Snider is the 38th recipient.



*The Admirals' Medal Presentation Dinner*

## Award Citation

Captain David (Duke) Snider, FNI, FRGS— “Captain Snider is recognized for his global reputation, built over the past 40 years, for competence and expertise in ice navigation, contributing significantly to the safety of shipping in Canada’s far north. Coincident with full-time employment in the Canadian Coast Guard culminating as Regional Director Fleet — Western Region, he established his own consultancy providing polar shipping and ice navigation training as well as hands-on navigation expertise. Martech Polar Consultants has been recognized in the Shipping Industry as the “Best” Polar Ice Pilotage and Navigation Specialists in 2018 and 2019. Himself elected a Fellow of the Royal Geographical Society in 2008, he is a recipient of the US Antarctic Service Medal and the Canada-Finland Medal for his accomplishments in the development and practice of ice-navigating standards. He served as President of the Nautical Institute 2016-18, is now a Trustee and member of the Executive Board and Finance and Administration committee and was instrumental in the establishment of the NI Ice Navigator qualification, and incorporation of similar requirements in the IMO Polar Code. He continues to be active in Polar Code discussions at IMO today. His book *Polar Ship Operations* (now in its 2nd edition) is a recognized textbook for ice-navigator training.



*RAdm Robinson presents the NAC Admiral's Medal to Captain David Snider*

Responsibility for the Admirals’ Medal Foundation was transferred from the RCN to the Naval Association of Canada (NAC) in 2021. NAC Naval Affairs has stood up a committee of retired Flag/Senior officers to carry out the review and selection process. Fuller information – including a full listing of past recipients of the Medal (many of whom will be familiar to members of the Society), the Selection Criteria, and a Nomination Form – can be accessed at: [navalassoc.ca/the-admirals-medal/](http://navalassoc.ca/the-admirals-medal/). Nominations should be submitted to the Secretary of the Medal Selection Committee, Dr Richard Gimblett, at: [richard.gimblett@me.com](mailto:richard.gimblett@me.com)



Sailor First Class Ben Leahey onboard HMCS Montreal raises the Canadian Naval Ensign as the ship transits into Souda Bay, Greece (Photo: Corporal Connor Bennett, CAF Photo)

# OPS Update

Every month the RCN produces a handy “Ops Update” to keep the public informed of the Navy’s major deployments and other significant events. This section is a quick summary of the most important ship news. Stay up to date with *Your Navy Today* by subscribing to receive these updates directly. To subscribe email:

[navypublicaffairs.affaires@forces.gc.ca](mailto:navypublicaffairs.affaires@forces.gc.ca)

This January, HMCS *Margaret Brooke* departed Halifax for a six-week deployment on Operation *Caribbe* in the Caribbean Sea and the Atlantic Ocean. During their time at sea, the crew sailed 11,150 nautical miles, spending a total of 48 days on the water. On February 4 the AOPV supported the interception of a drug smuggling vessel and seized 510 kg of cocaine in the Central Caribbean Sea. The three people suspected of drug smuggling are now in custody of the United States government, and the vessel was disposed of at sea. After a successful deployment, the ship returned to Halifax on March 9.

HMCS *Charlottetown* departed on January 31 to participate in Exercise *Steadfast Defender*. There, approximately 1,000 sailors, soldiers, and aviators from across Canada participated in both the sea and land components of the exercise, making it the largest in decades.

*Charlottetown*, with an embarked Royal Canadian Air Force CH-148 Cyclone helicopter, participated with the enhanced Forward Presence Battle Group Latvia, and elements of the Canadian Special Operations Forces Command. The ship worked closely with Belgium, Denmark, France, Germany,



Netherlands, Norway, Spain and the United Kingdom, making it the largest NATO exercise in decades. While in Europe, the frigate also participated in Exercises *Joint Warrior 24* and *Dynamic Guard 24*, where the crew performed intensive anti-submarine warfare training. This included coordinating with allied forces to detect, track and respond to simulated hostile submarine threats. After 37 days at sea, *Charlottetown* returned home March 13.

On March 11, HMCS *Max Bernays* departed from Halifax for a 6,750 nautical mile coastal transfer via the Panama Canal to its new homeport of Esquimalt, B.C. Capable of longer operations in challenging Arctic conditions, HMCS *Max*

*Bernays* will join Canada's western fleet to amplify its capabilities in the region and improve support for the Kugluktuk and Cambridge Bay communities. It will also enhance safety and security in the Indo-Asia Pacific region by supporting humanitarian assistance, disaster relief, as well as surveillance and interception of illegal smuggling.

On March 24, members of HMCS *William Hall* ship's company held a Northern Affiliation ceremony with the Kivalliq Inuit Association and community leaders in Rankin Inlet, Nunavut. The event marked the fourth affiliation between an AOPV and a region of Inuit Nunangat.

Ship affiliations with the communities of the Inuit

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Nunangat strengthen our understanding of the Arctic region and encourage relationship-building with Canada's Northern communities.

This April, HMCS Montréal deployed to the Indo-Pacific under Operation *Horizon*. This deployment is the first of three RCN warships annually deploying to Asia in support of the Government of Canada's Indo-Pacific Strategy. While there, *Montréal* will reinforce ties with international allies and strengthen relationships with like-minded nations by integrating with partner navies, participating in training exercises, and engaging in military and diplomatic cooperation. Operation HORIZON includes expanded opportunities to work side-by-side with allies and partners, empowering the Canadian Armed Forces (CAF) to play a more active role contributing to regional security.



*HMCS Margaret Brooke departs Halifax on Op Caribbe (Photo: RCN Facebook)*

# Lieutenant-Commander William (Bill) King Lowd “Lo” Lore RCN

*“First Chinese Canadian RCN officer and first officer of Chinese descent to serve in any of the Royal Navies of the British Commonwealth”*

**By: Sean E. Livingston | Author and CNTP Co-Founder**

**The Canadian Naval Tribute Project (CNTP)** recognizes a diverse, and largely uncelebrated, group of individuals for their historical contributions to Canada’s navy. Whether by acts of valour, exemplifying service before self, or breaking gender and racial boundaries, their tenacity and resolve reflect the spirit of the present-day Royal Canadian Navy. The brainchild of NAC Toronto members Mark B. Phillips and Sean E. Livingston, the monument, located on the grounds of HMCS *York*, honours fourteen trailblazers for their impact on Canadian history. The following article details the story of one of the CNTP’s honourees: Lieutenant-Commander William Lore.

Lore’s journey to the Royal Canadian Navy (RCN) was far from typical. Born on the February 28, 1909, in Victoria, British Columbia, he was a second-generation Chinese Canadian, his father a refugee who escaped Canton in 1885. From an early age, Lore proved academically inclined and motivated to learn. In 1929, he was accepted into McGill University to study mining engineering and moved across the country to pursue his post-secondary education. Unfortunately, at the same time he began his undergraduate studies, the American stock market crashed. Tuition and boarding costs rose, and the financial strain ultimately forced Lore to abandon his university schooling.

He returned home to Vancouver and took a job writing for a local Chinese-language newspaper. Lore became involved with the Chinese Students Soccer Team, serving as both club vice-president and treasurer. He helped make Canadian sports history when the team became the B.C. Mainland Cup Champions, defeating UBC Varsity at Con Jones Park on May 29, 1933. By the end of the decade, Lore

accepted a position with the civil service, becoming the first Chinese Canadian wireless operator of the Department of Transport, Radio Division, Marine and Air Service Branch. It wouldn’t be the last of “firsts” for Lore.

A quick learner, he took well to his new role – his supervisors were impressed with his attention to detail and technical expertise. Lore was on duty at Port Menier, Anticosti Island, when SS *Athenia*’s SOS “was intercepted and relayed to DOT, Ottawa, on 2/3 September 1939.” (Wong 60). A few weeks later, Lore received a call from the Royal Canadian Air Force (RCAF) who were eager to recruit skilled wireless operators, especially those proficient in more than one language. Lore was keen to join but his prospects of wearing RCAF blue were soon dashed when the government announced that Canadians employed in roles deemed essential to the war effort were not permitted to enlist in the armed forces. Lore’s current job was among those “reserved” occupations.



Still, something within Lore had been kindled – he wanted to support the war effort and serve in uniform. Three times he attempted to join and each time he was rejected. Lore later explained, “I applied in 1940, ’41 and ’42, but they refused my applications,” adding, “I think they just saw on my application ‘Chinese’ and threw it in the waste basket.” (Manthorpe, Jonathan, Chinatown News, 5/3/94, Vol. 41, Issue 16) He wasn’t wrong. Not only had the government imposed restrictive and racist immigration policies, such as The Chinese Immigration Act of 1923 (Chinese Exclusion Act), which barred nearly all Chinese immigration into Canada for approximately 24 years, those restrictions also extended towards military recruiting throughout the commonwealth, specifically in the air force and navy (Wong 60). Although Lore wanted to serve his country, his country wasn’t interested – regulations were clear that “... a recruit must be a British subject and of the white race.” (Wong 60)

In December 1939, the department of transportation transferred Lore to the Air Services Branch at the St. Hubert airport in Montreal to help with the influx of aircraft being sent overseas in support of a besieged Britain. There he handled “radio range weather broadcasts and air ground radio voice communications” (Wong 60). In 1943, Lore transferred to Dorval Airport, serving as a radio electrician and shift supervisor working with Ferry Command and Direction Finding Station, tasked with locating German U-boats (Wong 60).

Finally, in March 1943, Order in Council PC 1986 “...removed all racial restrictions and specified only that the recruit must be a British subject” (Wong 60). As fate would have it, Lore came to the attention of none-other than Chief of Naval Staff (CNS), Vice-Admiral Percy F. Nelles, who urged the young man to join the navy. The CNS needed people with his skillset at Naval Service Headquarters (NSHQ) and personally vouched for his admission. Thus, for a fourth time, Lore stepped into a recruiting office and, after satisfying preliminary requirements, became the first Chinese Canadian to serve in the RCN. Lore



*CNTP portrait of William Lore, created by local artist Matthew Therrien. Copyright CNTP*

likely didn’t realize the extent to which he’d just made history – upon accepting his commission he also became the first officer of Chinese descent to serve in any of the commonwealth’s navies. It’s important to appreciate the significance of this moment, as well as the long-term impact it would have on Canadian history: his joining the navy, and subsequent service during the war, would set an important precedent and assist marginalized groups to find future careers in Canada’s Armed Forces.

Lore first went to HMCS *Montreal* for some preliminary training and then attended HMCS *Cornwallis* for emergency officer training (Wong 61). By June, Lore had graduated from the RCN’s Officer Training Course, receiving a commission as a

temporary Sub-Lieutenant, Special Branch. The next month, he was posted to Ottawa and began working at the Operational Intelligence Centre at NSHQ. There his previous experience at the Department of Transport proved invaluable – he took it upon himself to inspect equipment and instruct staff at “various Radio Interception Centres [sic]” (Wong 61). By October, Lore had been made Officer in Charge of the Naval Radio Interception Centre at Gordon Head, Victoria, and then, in December, became the RCN’s liaison officer to the US 13th Naval District’s radio intelligence establishment, a post he held until May 1944 (Wong 61).

He returned to NSHQ and began working with the newly formed Combined Services Radio Intelligence Unit and was promoted to Lieutenant (SB) RCN. Then, in September 1944, he was put on loan to the RN and went overseas aboard the unescorted, fast troopship *Andes*, to train in advanced high frequency/direction finding at HMS *Mercury* (Wong 61). However, once the ship arrived in Liverpool, concern over Lore’s ethnicity arose when a British Major, who had come aboard to inspect the troops, told him that he “would not be allowed to land because [he] was Chinese and did not have a visa.” (Wong 61) Other officers vouched for Lore – after all, only citizens could join the service and Lore possessed proper military identification. After some back-and-forth, he was finally allowed ashore and reported to his post in London (Wong 61).

Although his character and skills were impressive, it was Lore’s ability to communicate beyond the English language that set him apart. After a brief assessment, Lore found himself selected to join a two-man team at the Combined Services Detailed Intelligence Corps in Burma. He found the whole situation confusing. As he later explained, after reading and interpreting “two lines of a Chinese epigram on screen... [I] suddenly became a Japanese intelligence officer.” (Wong 61) And so Lore found himself again on ship, this time heading to Southeast Asia Command to serve under Admiral Lord Louis Mountbatten. In January 1945, he arrived at Colombo, Ceylon (present-day Sri Lanka), and reported to HMS *Lanka* (Wong 62). He then travelled deep into the jungle to a top-secret RN transit camp, HMS *Mayina*, where he played an instrumental role in the development of a large, joint amphibious and

air attack on Japanese forces in Rangoon, Burma (present-day Myanmar). Code named Operation Dracula, the plan saw British and Anglo-Indian forces successfully liberate the city, contending with limited Japanese opposition, mostly in the form of snipers. By May of 1945, the enemy had been fully expelled.

With news that fighting in Europe had ended, Lore was dispatched to the British Pacific Fleet and then subsequently seconded to the American 7th fleet to serve with G-2 (American Intelligence) Allied Command Headquarters near Brisbane, Queensland (Wong 62). After the bombings of Hiroshima and Nagasaki, the Japanese government began to negotiate terms to surrender. Lore was sent back to the British fleet and reported to Admiral Sir Cecil Harcourt aboard HMS *Venerable*, to serve as “the Admiral’s Lieutenant.” (Wong 62) Lore had little understanding of what this new role would entail. The Admiral’s secretary, Commander Trythall, explained it to him: he would be “the Admiral’s eyes, ears, and legs and was supposed to be at the Admiral’s side at all times possible AND be able to answer any query put to him.” (Wong 62) It was even suggested that Lore “study up all references to Japanese naval vessels in Jane’s Fighting Ships.” (Wong 62)

Lore took the advice to heart and engrossed himself in everything he could find that had anything to do with the Japanese fleet. It was like preparing for an ambush, except the threat was a knowledge-based test which could be administered at any moment. Fortunately, Lore had a mind for facts and figures, and spent his spare moments reading and taking diligent notes. He accompanied Harcourt to HMS *Indomitable*, a fleet carrier, and by late August, orders came from Admiral Sir Bruce Fraser to occupy Hong Kong Island and Kowloon, leaving the New Territories for the Chinese to liberate (Wong 64). It was here that Lore’s studies proved invaluable. On August 28th, a Hellcat Patrol reported that it had spotted a flotilla of “30-odd speed boats in formation travelling in the direction of the Fleet” (Wong 64) and that they would be on Harcourt’s forces by that evening. The Admiral turned to his aide and asked him to identify the vessels.

At last, the test was sprung.

Thankfully, Lore already had the answer and wasn’t left standing there dumbfounded or scrambling. The



whole time, he'd been quietly reviewing the reports and, based on his knowledge of Japanese ships and tactics, which at this point was quite extensive, he concluded they were "suicide boats" (Wong 64). Upon hearing Lore's confirmation, Harcourt ordered the threat be neutralized and sent a force to intercept and eliminate the vessels. The moment was another feather in the young Lieutenant's cap – the Admiral was impressed by the speed and accuracy of his identification and the incident would, in part, influence his decision to task Lore with a special mission.

On August 30, 1945, Lore found himself aboard HMS *Swiftsure*, one of three minotaur-class light cruisers built for the RN. It was dawn and he was in the Admiral's bridge, looking out to the horizon as the ship led "the Fleet heading towards Hong Kong at median speed all ships companies in 'Ready Action Station' status." By 0900hrs *Swiftsure* was already in Hong Kong waters and joined two ships from the Royal Australian 21st Minesweeper Squadron, who proceeded to escort the cruiser towards Victoria Harbour. Lore noted the exact time they entered in his diary – 0930hrs – and added that "... the harbour was absolutely cleared of shipping of any kind – not even a Junk or sampan!" Things weren't any livelier ashore. He observed that "there [was] not a single living person seen on the whole visible waterfronts on Hong Kong Island or on Kowloon side!" The Japanese had set strict curfews and the locals had learned, through brutal punishment, not to disobey the invader's rules. Interesting to note, *Swiftsure* was the first allied ship to enter Victoria harbour since Hong Kong's capture back in December 1941.

At 0945, *Swiftsure* arrived at the RN's shore base, HMS *Tamar*. Originally a ship depot, the 3,650-ton troopship was scuttled during the island's failed defence to prevent it falling under Japanese control. Now, all that remained was the dockyard and associated buildings. Harcourt was aware of Canada's courageous defence of Hong Kong and directed his aide to lead the 1st platoon of Royal Marines to secure the area, explicitly instructing him to "make sure [he] would be the 'FIRST BRITISH OFFICER' ashore and to stand guard at the Main Gate of 'Tamar' until relieved." Before leaving, Lore drew a service revolver and some extra ammunition from the ship's vault, checking the pistol before placing it into a

holster affixed to his belt. He then met his contingent of marines, briefed them about their mission, and led them off the ship.

As he walked onto the base's main roadway, he paused and glanced around. Just like the rest of the shoreline, things were quiet and void of any activity. Something didn't feel right. After a moment's reflection, Lore finally realized what it was – there were absolutely zero sounds. Dense urban centers were always plagued by noise pollution – traffic, horns, music, construction, and throngs of commuters – but here the persistent city 'buzz' was missing. And that alone was enough to tickle the hairs on the back of his neck. The marine next to him tightened his grip on his rifle and raised it ever so slightly. Lore figured he wasn't the only one feeling wary of their surroundings.

Carefully, he led them up the road, the marines fanning out to clear buildings and adjoining passages as they went. Safety was paramount and despite reports that the enemy had vacated the area it was better to be cautious, lest they unwittingly trigger a boobytrap or walk headlong into an ambush. If half of what he'd heard about the Japanese was true, they would be wise to remain vigilant. Lore's senses were on high alert and although he wasn't holding his pistol, his hand lingered close to the grip, ready to draw and use his weapon if need be.

Before coming ashore, he'd taken a few moments to study a map of the base. Although outdated, he presumed the general layout would still be the same. The road they were presently on, which was wide enough to accommodate two transport trucks travelling side-by-side, should, if he'd read the map correctly, lead them to their objective. Just then it dawned on Lore that he was standing in the middle of the thoroughfare in his crisp, tropical whites. As resplendent as they were, the marines' muted combat dress was clearly better suited for this sort of work. He might as well be holding a large, illuminated sign reading 'OFFICER' – a sniper couldn't resist such an obvious target. Feeling exposed, Lore moved to the side of the road, hoping the buildings would grant him some cover.

A marine came up and reported that one of the buildings contained an "enormous" amount of Japanese currency. Lore, grateful for the distraction

from his anxious thoughts, followed the soldier into the structure. He performed a quick survey, noting tables, chairs, filing cabinets, and office supplies – everything one would expect in an administration workspace. What didn't belong were the stacks of yens in the back corner, rising from the floor in neat piles. They reached as high as his waist and Lore couldn't help but let out a whistle as his mind tried to calculate just how much money he was looking at. He'd never seen so many bills in one place.

"Did anyone touch them?" he asked.

"No sir," a marine replied, "I called for you straight away."

Lore nodded. "Leave it be, I'll report it when we get back to the ship. Let the Admiral handle it. Last thing any of us need is to be accused of plunder."

They exited the building and continued their sweep, eventually arriving at their objective - the main entrance leading out to the Kingsway. Lore followed Harcourt's orders to the letter, opening the heavy gate and stepping out onto the pavement beyond. His men took-up positions around him.

At 1330hrs, Lore received a visit from Lieutenant John Gunyan, a fellow Canadian serving aboard *Swiftsure*. Harcourt wanted both men to conduct a "foot patrol of the business district" and Gunyan, fluent in Japanese, was an obvious choice. The fact that the second RN officer to come ashore was also Canadian made Lore beam with pride, a point he would later note in his diary. Both men proceeded on their journey, leaving the marines to stand sentry at the gate. By this time Lore was feeling better about the area, his hours at Tamar's entrance - all uneventful - leading him to conclude that Japanese forces had indeed withdrawn from the surrounding area. He doubted they would face any opposition this close to the base, especially with a flotilla just off the coast. As they patrolled, they finally came across some locals who had ventured from their dwellings to do some shopping. The presence of uniformed RN officers both surprised and relieved the citizens, and Lore noted that they acted much like prisoners, afraid to even make eye-contact. He wondered if their mannerisms hinted at the difficulties the population had endured under years of Japanese occupation. An hour into their reconnaissance, Lore and Gunyan met their "first Hong Kong European" who, upon

recognizing their uniforms, began to cry. Lore no longer doubted the stories about the enemy's ill-treatment of civilians.

"I've waited almost four years to see this," he said to them. The man, who had been a police officer before the invasion, would eventually become a friend of Lore's and later re-join the force and serve as Superintendent of the Special Branch. By the time they completed their patrol, Lore had grown concerned about what he had witnessed and heard. He no longer doubted that what he'd been told about the Japanese and their ill treatment of civilians was indeed true.

Both men returned to *Swiftsure* around 1700hrs, and Lore gave a verbal report to Harcourt. He relayed that shop owners were already beginning to resume business and pedestrian foot-traffic had grown. He then had some supper before going back ashore – again armed with a pistol – to sweep "the darken streets, alleys and lanes on the hillside... from Hollywood Road to Queen's Road." Accompanied by some Royal Marines, he noticed what appeared to be looters nosing about some shops in the distance, but most fled upon hearing their approaching footsteps. As for the others, his marine escort scared them off by firing a few rounds into the night. Their patrol was quite successful – the next morning Lore reported none of the shop owners had anything stolen (although there were multiple attempted thefts).

At around 0130hrs, Lore made it back to *Swiftsure's* motorboat. The Coxswain looked relieved to see him, noting that the crew had heard gunshots and were concerned for his welfare. When he reached the ship, he was thankful that Harcourt had already retired for the night. He was tired from being on his feet all day and direly needed rest. Lore went straight to his cabin, kicked off his shoes, and flopped onto his bed. He didn't even remember falling asleep.

On August 31, a somewhat rested Lore awoke and began his usual morning routine: he washed-up, dressed into a fresh set of naval whites, and ate a decent breakfast before reporting to Harcourt's cabin for 0930hrs. Outside the entrance, Lore noted "a young British Sub/Lieutenant [sic] and a grizzled old C.P.O." standing about. Acknowledging them both with a nod, Lore entered, paid his compliment, and removed his hat before proceeding to report on the



previous evening's events. After concluding, Harcourt leaned forward, planted his forearms onto the wooden desk, and looked Lore in the eyes. Something important was on his mind.

"Lore, you must have heard about the POW's after the surrender of Hong Kong in December, 1941?"

"Aye, sir." Lore replied.

"Well, those POW's, including Canadians, British and Hong Kong Volunteer Defence Corps, had suffered Japanese tortures, forced labour and mal-treatments for about four years," Harcourt explained. "Those still surviving are in dire straits requiring immediate relief."

The Admiral sighed. "However, we have no idea where the camp is situated, no street maps or

intelligence reports. Further, by agreement with the Japanese, all of Kowloon will be in the full armed control of the Japanese and we cannot afford the time to go through the protocol of formal negotiations before we attempt to open-up the camp for reliefs to be brought to the POWs."

Lore nodded in agreement.

"So, we must somehow effect the opening-up of the camp as soon as possible by any means possible." Harcourt pointed a bony index finger at Lore before concluding, "In other words, this difficult mission is left for you." He then shifted his finger and gestured to the hatchway, to where the young officer and chief awaited. "There's your army, both volunteers. A Japanese-speaking officer and one tough CPO!" (Manthorpe)



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“Aye sir, but if I may...”

Harcourt cut him off, “I leave everything to you and you have my permission to use your discretion and ingenuity, but try not provoke the Japanese sentries or camp guards.”

“Understood sir,” Lore answered.

“Good man,” the Admiral said with an approving smile. “Now, go and open up the camp – relief will be sent the moment you indicate that it’s open.”

Lore replaced his headdress, saluted, and turned about to exit the cabin.

“Oh, and Lieutenant?”

Lore stopped and glanced back at Harcourt.

“Good luck!”

“Aye sir, I’ll try my best,” he promised.

Lore left the Admiral’s cabin, introduced himself to the two men waiting outside, and then found a spot to brief them on their mission – ‘brief’ being the optimal word as he didn’t have much to share. They’d been assigned an extremely difficult task with little guidance on how to accomplish the objective. Lore didn’t even know where to start his search. He’d never been to the mainland and without any intelligence reports or concrete information, he was moving in the dark. Making matters worse, they didn’t even have resources at their disposal – no aircraft or vehicles. That meant they’d be on foot, searching an area approximately 400 square miles in size. If they went in the wrong direction, they could search the better part of the day and be nowhere near the POW camp. And Lore had to accomplish his mission before nightfall.

Finding the camp was only the first obstacle. Getting *into* the camp was the real trick. Lore had to somehow convince the guards to allow them access and not get shot in the process. Japanese soldiers had a reputation for many things, but patience and negotiation weren’t among them. If their orders were to bar anyone from entering the camp, they wouldn’t hesitate to use lethal force.

Before debarking, they armed themselves with .38 revolvers – relatively inconspicuous and reliable – and filled their pockets with extra ammunition. They then proceeded to *Swiftsure*’s cutter, which was

already alongside and ready to depart.

“Another jaunt ashore, sir?” the coxswain teased as Lore lowered himself into the boat. It was the same man who’d ferried him across the channel the other day.

“Didn’t get to finish my sightseeing,” Lore joked.

Lines were cast and the vessel slipped into the channel, heading in the direction of the mainland. Lore thought for a moment and then tapped the coxswain on the shoulder.

“Take us to Flagstaff Steps,” he ordered, and the cutter immediately turned about, heading south towards HMS *Tamar*. Both the sub-lieutenant and chief shot him a questioning look.

“I thought of something that might help us,” he explained, adding “I also think its better if we sneak ashore. We’ll probably be spotted in the cutter.” He gestured to the small white ensign at the stern, flapping in the wind. The Japanese were likely watching, and the last thing Lore wanted was to be intercepted by an enemy patrol upon making landfall. It would undoubtedly lead to questions and if someone warned the camp about their mission, the prisoners might be moved to another location. Lore knew he was being overly cautious – it was unlikely such a thing would happen, especially after Hirohito announced the country’s surrender and acceptance of the Potsdam Declaration – but he worried that some commander might view the POWs as a bargaining chip.

The cutter came to their destination and in short order, the three men were left ashore, watching the vessel as it proceeded back to the ship. They were standing at the far end of Flagstaff’s front lawn, a large white building that, at first glance, appeared to be the residence of some wealthy person. Lore noticed it the other day – how could he miss it? Unlike everything else, this was clearly European in design; two stories with rows of smooth columns lining the entire front and sides of the building. It was a commanding structure, situated on a spacious piece of lakeside property, replete with trees and gardens. But what really caught Lore’s attention was the state of the lawn – it was still in decent shape, which meant the building had been occupied even after the invasion. A bit of research indicated that, prior to 1941, Flagstaff



had served as the residence and headquarters of the Commander of British Forces in Hong Kong. It seemed the Japanese had also used it as a command center. If Flagstaff had been evacuated as hastily as the rest of *Tamar*, there was a chance they might discover a trove of intelligence in the building, including the location of the POW camp.

They proceeded up to the front entrance. The building appeared unoccupied and when the chief tried the main door, he found it unlocked. Lore wasn't taking chances – he and his team carefully swept the building and cleared each room before starting their search. Several rooms had been converted to administrative offices, each containing walls of cabinets, folders, and lots of paperwork, but that didn't interest Lore. What he wanted was a map, the sort usually found in an HQ – large scale print with markers pinpointing key locations. Unfortunately, if there was one, the Japanese had removed it before evacuating the building.

Lore considered the situation. The sub-lieutenant was the only person who could read Japanese and he didn't fancy waiting around while one officer waded through hundreds of files. They simply didn't have the time. So, he made the decision to leave – perhaps they could find a local on the mainland who could point them in the right direction. Close by, ferries were in full operation, moving locals to and from the mainland. It would be easy enough to blend-in with the rest of the commuters.

They left Flagstaff and headed to the terminal, boarding the ferry on route to Tsimshatsui. Nobody else was in the vessel, save for the crew (they didn't know anything about the POW camp). The locals were wary about crossing the channel - the Japanese still had control over the other half of Hong Kong. So, the trip to the mainland was quiet. Lore kept his eyes glued to the shoreline, hoping to see people going about their day, but as the vessel neared its destination, he failed to spot a single “living soul at the Ferry Concourse”. The area seemed void of any activity except vessels berthing and slipping from their respective docks.

“So much for that idea,” he thought.

Once ashore, Lore was yet again forced to update his plan. They needed to find someone who could tell them where the camp was but the area surrounding

the terminal was empty. Even across the street, not one pedestrian or vehicle could be seen. It was a city in transition – the Japanese had surrendered but hadn't left and until the invaders were expelled, nobody was leaving their homes.

At last, Lore made up his mind. They would split up: the sub-lieutenant and chief would head into the city in search of a Japanese sentry while he would sweep along at the shoreline. They would all meet up again at the concourse in half an hour. Before they parted ways, Lore explained that the subaltern (the CPO couldn't speak Japanese) wasn't to divulge the nature of their mission and was to ‘encourage’ the soldier to reveal the camp's location. Hopefully, the guy would be the talkative sort and unwittingly give up the site.

Fifteen minutes passed. Lore strolled around the area but came across nobody on the streets and pathways. He began to regret his decision to stay behind when suddenly the sound of an engine caught his ear. A black limousine came down the road and pulled up to the curb in front of the ferry concourse. He quickly approached, intent of questioning the driver when, to his surprise, doors opened and his companions exited.

“You found a car?” he questioned, looking gob smacked. He then realized that neither of them had driven. Instead, a Japanese man was at the wheel. The sub-lieutenant explained everything that had occurred: both men had ventured into the city but, like Lore, hadn't come across anyone. About ten minutes into their search, they noticed the Peninsular Hotel and figured it was a good place to find someone. Their timing couldn't have been better – upon entering, they bumped into a Japanese Police Chief. After some conversation, the man not only gave them the information they needed, but even offered to have his driver take them to the Sham Shui Po prison camp.

With renewed vigor, Lore entered the vehicle and took a seat behind the driver. The car took off and made for the city outskirts. According to their guide, the camp wasn't more than fifteen minutes away, which was welcome news. If all went well the POWs could be liberated before noon. City buildings became factories as they passed into an industrial area. Some appeared to be in operation - Lore noted the odd truck hauling raw materials. Still, things were disturbingly

quiet, but he figured that would all change within a week.

The car slowed to a stop and Lore leaned to see past the driver, noticing a tall fence and gate. The road had taken them right to the prison's entrance. He checked his watch and noted the time: 1040hrs. Six Japanese soldiers stood guard with rifles in hand.

Lore turned to the sub-lieutenant. "Would you mind asking our chauffeur if he could mildly request for the guards to open the gate for us to drive into the camp?" He didn't know how the soldiers would react but hoped they wouldn't make things difficult. Lowering his window, the driver relayed the message, but the guards simply laughed and gestured for them to leave. The driver turned back and spoke to the sub-lieutenant.

"He says they told him to leave," the officer explained.

"I caught that," Lore thought, and then replied, "We're getting into that camp. Tell the driver to explain to them that we are British Naval Officers under direct orders from the Commander-in-Chief of the British Liberation Fleet. The camp is to be opened and reliefs brought to the POWs."

Again, the driver spoke but this time the guards didn't laugh. Instead, they chose a more direct form of communication – raising their rifles.

This wasn't playing out how Lore wanted, but the show of force didn't intimidate him. Instead, he felt his temper flare at the guard's stubbornness. Were they clueless? The emperor had announced Japan's surrender, a flotilla of allied warships was in the channel, and these men were less than a day away from becoming prisoners themselves. There was nothing to gain by barring their entrance to the camp. Lore decided it was time to ditch the diplomatic approach in favour of something more assertive.

The driver turned back, the look on his face asking, "what now?", but Lore was too busy examining the gate to respond. It was only barred by a single plank of wood. If the vehicle were to drive into the entrance, they could easily break through. He looked at sub-lieutenant and said, "I want the driver to back-up the car about five meters."

Slowly, the car crept back and stopped. The guards

looked on with a mix of confusion and interest. Lore then ordered the sub-lieutenant and chief to point their revolvers out their respective windows. The driver was to slowly bring the car to the gate – he was not to stop, even if the guards refused to move – so that the front end was basically touching the entrance. The chauffeur hesitated and asked the sub-lieutenant to repeat the instructions, but Lore interrupted.

"Move forward," he commanded, adding emphasis on the latter word.

The windows were lowered, arms extending out holding pistols as the car crept forward. This time Lore loudly instructed his subaltern to have the driver "tell those so and so guards that I give them exactly five minutes to open the gate or we shall shoot our way through!"

It was a bold and dangerous move. Lore had no idea how many soldiers were behind the wall (there were in fact thirty) and if things escalated, they likely wouldn't survive the fight. The sentries were clearly taken by surprise. Rather than shoot, they hesitated and looked to one another. This wasn't something they were prepared for - whatever instruction they'd been given, Lore guessed it was only to deter the enemy from entering the camp, not physically prevent it. In the absence of any clear direction, the guards shuffled out of the way and watched as the vehicle's bumper came within an inch of the gate. The stalemate was eventually broken when one of the soldiers darted off. At first Lore wondered if he'd simply cracked under the stress.

"No," he told himself. "He's going to ask someone what to do." Hopefully the person in charge had more sense than his men, otherwise things were about to get dicey. The guards were hardened soldiers and wouldn't hesitate to attack if ordered to.

The minutes passed slowly, and Lore could hear his own heart beating. He held his revolver with a rock-steady grip, finger resting on the trigger. He stole a glance at his wristwatch – they were approaching the five-minute mark. In a matter of seconds, they would open fire...

Thankfully, as the hands of his clock neared zero hour, the guard suddenly returned and began speaking urgently to the other men. They immediately lowered their weapons, removed the board, and opened the



door for the vehicle to pass. Lore also ordered his men to stand-down.

The bluff had worked.

The camp was a converted military barracks, located on a large plot of land situated along the harbourfront. They first passed some lager buildings, which Lore assumed housed the guards, before stopping at an intersection at the center of the compound. To the left, closest to the water, were buildings that Lore understood housed prisoners who were officers. To his right, columns of basic single-story structures stretched into the distance, organized into neat columns consisting of rows of about six buildings, separated by a main dirt road. The entire camp was surrounded by a large fence with sentry towers stationed at each corner. Lore and the others exited the vehicle and glanced around. Nobody was outside. Large mountains loomed in the distance, a natural barrier to the rest of the mainland. Lore figured the prisoners were likely inside, seeking relief from the rising heat, and proceeded to the closest building on

his left. He knew that Canadian and British officers were housed in separate, adjacent barracks, and directed the sub-lieutenant to the appropriate structure, while the chief stood guard outside.

Lore entered the dimly lit barracks and nearly recoiled from the stench of sweat and filth. There were ten men sitting at a crude wooden table, all shirtless and dangerously gaunt. They looked more akin to skeletons than people - he would later report "You could see their bones through their skin." They froze, surprised by the sudden appearance of somebody wearing clean, tropical whites. Lore broke the tension.

"I'm a Canadian Naval Officer and I'm here to liberate you guys," he announced, adding with a smile, "Aren't you glad to see me?"

The men blinked, momentarily confused before connecting the dots. They bolted from their seats and rushed forward to greet their liberator, wrapping thin arms around Lore and shouting in joy. More came from the upper rafters, descending ladders and joining



*CNTP Plaques at base of flag pole.*

the throng until thirty men surrounded him. They thanked him, asked him questions, and even took interest in his cap badge.

“You’re the first Canadian we’ve seen for almost four years,” one said.

“How we’ve waited for this day!” another exclaimed.

The men began to cry, tears flowing freely from their eyes. They shared stories of their ill-treatment and suffering and soon Lore began to weep with them.

“I had never seen so many men in tears together,” he later reported. “But they were happy tears! [...] they were like skeletons and I realized that the young happy-go-lucky ‘boys’ of less than 4 years ago had become old men because of the maltreatments they had suffered, causing many fatalities among them.”

The soldiers soon dug up an old Union Jack they’d hidden from the Japanese. Lore ordered the head guard to “sink the Rising Sun” and hoist the other flag into the air. It stood tall above the camp and soon other POWs, hearing the commotion, gathered around, eyes watering at the sight of the flag and their liberators. Lore assured the men that medical supplies were on the way and that they would get “clam chowder” aboard *Swiftsure*. The crowd cheered in response. In the distance, guards looked on glumly and lit cigarettes to calm their nerves. They knew it was the end.

That afternoon, Lore gave his report to Harcourt who was pleased by the outcome. The Admiral commended them for their actions and ordered additional medical aid and men be sent immediately to the camp. Lore would later reflect on the incident, saying “I was quite satisfied that we had completed the difficult mission and remembering my meeting with the Canadian Officers, I considered our dangerous mission worthwhile.”

That evening, he retired early to bed. He’d certainly earned a good night’s rest.

Lore remained at Hong Kong with Harcourt, not only continuing as the Admiral’s staff Lieutenant but also serving with the Naval Intelligence Unit, the Joint Intelligence Unit, and acting as liaison officer to China. Despite numerous sources stating that he was present for the official surrender of Japanese forces in Hong Kong on September 16th, his own account

states otherwise. Instead, he was aboard ship, “glued to the radio broadcast from Hong Kong of the official singing of the surrender of the Japanese Garrison in Hong Kong and the Ceremonial Parade afterwards.” Lore wished he was there, noting that he and his fellow officers, “were sorry to miss the ceremonies, especially I, who would have been standing by Admiral Harcourt’s side at the signing of the Surrender and at the parade afterwards.”

Despite the war being over in the Pacific, Lore stayed on loan to the British Navy until November 1946 and then returned home, where he was promoted to Lieutenant-Commander. During the Korean War and communist expansion throughout parts of Asia, Lore served in Hong Kong doing intelligence work throughout the southeast. The details of his work remain a mystery – Lore was “still reluctant to talk about [it]” during an interview in 1994. In 1957, he left Canada and settled in Hong Kong, becoming an insurance agent. Then, at the age of 51, Lore earned a law degree at Oxford University. He opened his practice in 1962, not far from HMS *Tamar*. In 1994, Governor General Ray Hnatyshyn presented him with a military, long-service certificate. He died on September 22, 2012, having lived to the impressive age of 103.

On October 5th, then Minister of National Defence, **The Honourable Peter MacKay**, expressed his condolences on the passing of Lore and gave the following statement:

*“Mr. William Lore’s drive and determination to serve his country and to achieve recognition of Chinese Canadian as full members of Canadian society serve as a wonderful example to all of us and show that we all can make a difference. As a sailor, Lieutenant-Commander Lore made Canada Proud.”*

For more information on the CNTP, including details on how to support the project, please visit: [www.canadiannavaltribute.ca](http://www.canadiannavaltribute.ca) or email at [cdn.navaltributeproject@gmail.com](mailto:cdn.navaltributeproject@gmail.com)





# Last Post

Compiled by Pat D.C. Barnhouse | Starshell Obituaries Editor

Kindly forward all obituaries to Pat at:  
535 Kenwood Avenue, Ottawa, ON K2A 0L7  
or by email: pat.barnhouse@sympatico.ca

## NAC MEMBERS

### **Cdr Lorenzo Arthur CORMIER, CD, RCN(R)(Ret'd)**

NSNAC, 93 in Halifax 01/09/23. Jn'd Scotian as UNTD Cdt(S) 22/02/50, prom S/Lt(S) 01/07/52, Lt(S) 01/07/54 and LCdr 01/07/62. Later prom Cdr. CO Scotian 1971-74. Ret'd in '74. CNMT Trustee, Civ career as Comptroller Olands. (WC)

### **Lt(S) Eric Victor Ambrose DeBECKER, RCN(R)(Ret'd)**

Toronto Br., 90 in Toronto 15/03/23. Jn'd Donnacona as UNTD Cdt(S) 02/01/55 and prom S/Lt(S) 01/07/56. Tsf'd to York in '58 and prom Lt(S) 01/07/58. To Ret'd List in '61. (GP, WC)

### **LCdr(Ret'd) Francis James DUFFY, CD\*\***

Montreal Br., 93 in Montreal 12/01/24. Past President Montreal Br. Bronze (1998) and Silver (2006) Medallions. (BC)

### **Cdr Douglas Arthur HENDERSON, CD\*\*, RCN(Ret'd)**

NACVI, 87 in Victoria 23/02/24. Jn'd Venture as Cdt 11/09/55. Prom Mid 01/09/57 fl'd by Stadacona 12/57. Prom A/S/Lt 01/01/58 thence Cayuga 06/58 and St Laurent 03/59. Prom S/Lt 01/05/59 fl'd by Fraser 02/60 and Sussexvale 01/61. Prom Lt 01/04/61 thence Stadacona 08/63 and Qu'Appelle 09/65. Prom

LCdr 01/01/69 and Cdr 01/01/78 and srv'd, inter alia, Stadacona, CFSC, Restigouche (i/c), CO NOTC (Venture) and NATO Defense College. Ret'd in '93. (RH)

### **Capt Stanley Everett HOPKINS, CD\*, RCN(Ret'd)**

NAC-O, 95 in Ottawa 28/10/23. Jn'd Royal Roads as Cdt 29/08/45. Prom Mid E) 03/07/47, A/S/Lt(E) 03/03/49 and S/Lt(E) 03/06/49, all whilst training with RN (RNEC, RNC Greenwich, HMS Agincourt, HMS Illustrious). Prom Lt(E) 03/10/50 thence Quebec 14/01/52, Niobe (AMEC) 09/53 and Bytown (including nuclear engineering at UofO) 05/56. Prom LCdr(E) 03/06/57 fl'd by Bonaventure 18/08/61, Prom Cdr 01/01/63 thence Bytown (DMEE) 09/01/63. Prom Capt 01/07/67 and srv'd NEUP (i/c), and CFHQ (as DMM and DTAM). Ret'd in '78. Civ career as partner Minogue and Associates and as consultant. (Citizen)

### **Cdr(NR)(Ret'd) John David KYLE, CD**

NACVI, 93 in Victoria 01/11/23. Jn'd Royal Roads as Cdt 09/49. Prom RCN(R) Mid 12/08/51 at Discovery, A/S/Lt 01/09/52 and S/Lt same date. Prevost (RCAF Centralia Flt. Thg.) 01/10/53 fl'd by Lt 01/09/54. Qual Lt(P) 05/56. Discovery for VC-922 05/56 thence Nonsuch (i/c UNTD) 11/59 fl'd by York and HMS Wessex (whilst on UK graduate studies). Prom LCdr(NR) in '69 and Cdr(NR) in '72. Civilian career as professor and in business management. (RH, WC, Canada's Naval Aviators)

**Capt(N)(Ret'd) J. A. Y. PLANTE, CD**

NAC-O, 75 in Laval, QC 08/02/24. Jn'd as a DEO S/Lt 19/04/74, prom Lt 01/01/79, LCdr 01/01/83, Cdr 01/01/87 and Capt 01/01/91. Srv'd, inter alia, Skeena, CDLS(L) (S/M Trg.), Onondaga (i/c), Okanagan (i/c), Ojibwa (i/c), Fraser (i/c), Cdr 1st Canadian Submarine Squadron and NDHQ(DMRS). Ret'd circa 1995. Civ career as consultant. Bronze (2012) and Silver (2015) Medallions. (WM).

**LCdr George Stanley SCHOBER, CD\*, RCN(Ret'd)**

NACVI, 96 in Victoria 21/02/24. Jn'd RCN as Mid 15/05/47 thence RN (for Trg.). Prom A/S/Lt 15/09/48 fl'd by Stadacona 07/50. Prom Lt 15/05/51 thence La Hullose 09/50, Huron (Korea) 11/52, D'Iberville 06/54, Buckingham 09/56 and Swansea (XO) 08/58. Prom LCdr 15/05/59 fl'd by Queen 10/60, Skeena 08/62, Naden 01/64 and Training Command. Ret'd in '73. Civ career as Master Mariner. Bronze Medallion in '73. (RH)

**OTHERS**

**PO1 William Theodore ANDERSON, CD\*, RCN(Ret'd)**

95 in Dartmouth, NS 20/11/23. Srv'd *Sioux*, *Nootka* (Korea, 2 tours), *Quebec*, *Ontario*, *Magnificent*, *St Croix*, *Terra Nova* and *Nipigon*. Srv'd 25 years. (WM)

**S/Lt Michael Robert Colin ANGEL, RCN(R)**

83 in Salt Spring Island, BC 24/09/23. Jn'd *Nonsuch* as UNTD Cdt 02/01/59 and prom S/Lt 01/07/61. Rls'd in '62. (WC)

**Cdr(Ret'd) Steven Albert BELL, MSM, CD\*\***

68 in Ottawa 17/12/23. Jn'd as DEO S/Lt 15/08/75, prom Lt 01/01/79, LCdr 01/01/85 and later Cdr. Srv'd, inter alia, *Margaree*, *Ottawa* (XO), BOTC Chilliwack (Trg. O.), NATO Staff Naples, CAF Joint Staff Shirley's Bay, NDHQ and LNO NAVCENT

Bahrain. (WM, DS, BW)

**Cdr Peter Benchley CURZON, CD, RCN(R)(Ret'd)**

92 in Toronto 06/11/23. Jn'd *York* as UNTD Cdt 02/01/52, tsf'd to Cdt(S) in '53 and prom S/Lt(S) 01/09/54. Srv'd *Star* in '55 and tsf'd to *Catarqui* 09/56. Prom Lt(S) 01/09/56 and back to *York* in '68. Later promoted LCdr and Cdr. CO *Carleton* 1968-70. (WC)

**CPO1 James Kenneth DEAN, CD\*\*, RCN(Ret'd)**

82 in Perth, ON 27/12/23. Ret'd as Chief ERA. Member 1969 crew of *Kootenay*. (Citizen)

**Cdr(Ret'd) Christopher John DEERE, OMM,CD\***

65 in Charlottetown, PE 24/01/24. Jn'd as RMC Cdt 09/79, prom A/S/Lt 01/05/83, S/Lt 01/05/84, Lt 01/01/86 and later LCdr and Cdr. Srv'd, inter alia, Clearance Diver Trg., CDLS(L) (RN CD Exchange – *HMS Brocklesby*, *HMS Dulverton* for gulf War), MARLANT HQ, *Charlottetown*, CFMWC, Commandant CFFS Quebec, CO FDU(Atl), NDHQ and Liaison Officer in Paris. Ret'd 2016. (WM)

**Joanne DELAMERE**

Former Member, 77 in Ottawa 14/03/24. Widow of Capt(N) Tony Delamere. (BW, Citizen)

**Cdr Robert Anthony DOUGLAS, CD, RCN\*Ret'd)**

85 in Guelph, ON 21/01/24. Jn'd as Cdt at CMR 01/09/56, thence RMC. Prom S/Lt 01/05/61, Lt 11/05/63, LCdr 01/07/68 and Cdr 01/07/74. Srv'd, inter alia, *Stadacona*, *Saguenay*, *Terra Nove*, *Gatineau*, and NDHQ. Ret'd in '78. (e-Veritas).

**Capt(N)(Ret'd) Michael William EELHART,CD\***



45 in Halifax 05/12/23. Jn'd as Cdt at RMC 09/96. Srv'd, inter alia, NDHQ, *Toronto* (XO), *Moncton* (i/c), *St John's* (i/c) and *Montreal* (XO and i/c in 2018). Ret'd 2022. (WM)

**CPO(Ret'd) Lawrence Richard EUSTACE, CD\*\***

72 in Halifax 30/01/24. Jn'd in Bosn's Branch in '68. Srv'd, inter alia, *Protecteur*, *Preserver*, MARCM and CFFS Halifax. Ret'd in 2005. (WM)

**LCdr Alexander HUTCHINGS, RCN(R)(Ret'd)**

95 in Orillia, ON 31/12/23. Jn'd *Scotian* as UNTD Cdt(S) 20/02/50, prom A/S/Lt(S) 01/09/52, Lt(S) 01/09/54 and LCdr in '65. Srv'd *Stadacona* 1951-52 on CND as Cdt(S) and *Bytown* summers 1962-63. Also srv'd *Prevost* and *York* and on Ret'd List. (WC).

**LCdr Robert Gammell JEKYLL, CD, RCN(Ret'd)**

90 in Toronto 23/12/23. Jn'd *Royal Roads* 09/51 and named RCN(R) Cdt 24/04/52. Tsf'd to RCN Cdt(E) 19/09/52. Prom Mid(E) 01/09/53, A/S/Lt(E) 01/01/55, S/Lt(E) same date, Lt(E) 01/05/57 and LCdr 01/01/65. Srv'd *Niobe* (RNEC Manadon). *Ontario*, *Bonaventure*, VS-880, *Niagara* and PNO Mtl. Ret'd in '69. (WC).

**Lt George Henry JEWELL, CD\*\*, RCN(Ret'd)**

84 in Halifax 19/01/24. Jn'd in 1957 and srv'd Supply Br. CFR'd from CPO1 as Lt 22/06/87. Ret'd in '93. (WM)

**Lt(N)(Ret'd) Mark Hamilton MANSFIELD**

64 in Corona del Mar, CA, USA 25/12/23. Jn'd *Royal Roads* as Cdt 08/78 fil'd by RMC 09/80. Prom S/Lt 05/82 and Lt 05/85. Srv'd BOTC Chilliwack, NOTC, *Yukon* and *Terra Nova*. Rls'd 05/87. (RW).

**Lt Donald Melville MacKEY, CD\*\*, RCN(R)(Ret'd)**

**RCN(Ret'd)**

83 in Dartmouth, NS 12/11/23. Jn'd RCN in '58 and qual Sonarman, CFR'd as Lt 03/04/89. Srv'd, inter alia, *Cornwallis*, *Annapolis*, *Nipigon*, *Iroquois*, CFS Shelburne and NDHQ (Career Mgr.). Ret'd in '95. (WM)

**Lt(N) Ignatius MANSO**

60 in Ottawa 06/12/23. Jn'd as a DEO A/S/Lt 15/09/88 and prom Lt 01/01/91. Srv'd, inter alia, CFB Chilliwack, CFB Bordon, Venture NTC and *Huron*. Rls'd circa 1995. (*Citizen*, WM)

**LCdr Raymond M. OZORIO, CD\*\*, RCN(Ret'd)**

86 in Windsor, ON 22/02/24. Jn'd as OSMA in '54. CFR'd as Lt 01/01/81 and prom LCdr 01/01/88. Srv'd, inter alia, *Cornwallis*, *Stadacona*, *Magnificent*, *Bonaventure*, *Naden*, NDHQ, CFB Borden and CFE. Ret'd in '89. (*Citizen*)

**Surg Lt Patrick Yoshiri MIKI, RCN(R)(Ret'd)**

93 in Langley, BC 16/08/63. Jn'd *Chippawa* as UNTD Surg Cdt 15/01/50, prom A/Surg S/Lt 01/05/52, Surg S/Lt same date and Surg Lt 01/06/53. Tsf'd to *Discovery* 24/09/54. To Ret'd List in '62. (WC)

**Col(Ret'd) Arthur Rossmark NEILSEN, CD\*\***

80 in Colorado Springs, CO 24/10/23. Jn'd as Cdt at RMC 01/01/62, prom S.Lt 01/05/66, Lt 01/05/68, Maj 01/12/73, LCol 25/06/87 and Col 28/06/91. Srv'd RCAF Centrailia, RCAF Portage La Prairie, *Shearwater*, *Bonaventure*, CDLS(W) (USN Exchange), Portage (i/c PFS), RAF Staff College, CFSS (DS), Greenwood, Comox, MAG HQ Hfx, NDHQ and NORAD HQ. Srv'd VS-880, VP-415, VU-33 (i/c) and VP-415 (i/c). Ret'd 11/09/96. (PB, Canada's Naval Aviators)

**Capt Peter Charles NEWMAN, CC, CD\*\*, RCN(R)(Ret'd)**

Former Member, 98 in Belleville, ON 07/09/23. Jn'd *York* as UNTD (OS Officer Candidate) in '47 and desig RCN(R) Cdt 26/10/48. Prom S/Lt(SB) 01/09/50, Lt(SB) 21/09/54, fl'd by LCdr, Cdr in '80 and Capt '88. Srv'd, inter alia, *Portage*, *Swansea*, *Iroquois*, *Donnacona* and NDHQ. (WC, *Globe & Mail*)

**Lt John Victor OUELLETTE, RCN**

85 in Antigonish, NS 15/01/24. Jn'd *Venture* as Cdt 09/09/56, prom Mid 01/09/58, A/S/Lt 01/05/59, S/Lt(P) same date and Lt 01/07/62. Srv'd *Niagara* (USN Plt. Trg.), *Shearwater*, *Bonaventure*, HU-21 and *Cornwallis*. Rls'd in '64. (JC, Canada's Naval Aviators)

**LCdr Richard Allen Bedford PRETTE, CD, RCN(R)(Ret'd)**

92 in Victoria 28/01/24. Jn'd *Malahat* as UNTD Cdt 02/01/51, prom A/S/Lt 24/08/53, A/Lt 24/08/55, Lt same date and LCdr 01/01/65. (WC)

**Cdr Ian Joseph REID, CD\*, RCN(Ret'd)**

87 in North Saanich, BC 21/12/23. Jn'd as Cdt(E) at CMR 11/09/53, prom Mid(E) 01/09/57, A/S/Lt(E) 01/05/58, S/Lt(E) 01/09/59, Lt 01/07/61, LCdr 01/01/71 and Cdr 01/01/78, Qual "E" and "A/E". Srv'd, inter alia, *Niobe* (RNEC), *Shearwater*, *Bonaventure*, VS-880, *Preserver* and NETE (OIC). Ret'd in '84. (e-Veritas)

**LCdr(NR)(Ret'd) Ronald Duncan RITCHIE**





*Members of HMCS Ottawa's Deck Department conduct Rigid Hull Inflatable Boat (RHIB) training as the ship sails on the Pacific Ocean during Indo-Pacific Deployment on 22 November 2023 (Image: Gregory Cole, CAF)*

