STARSHELL

SPRING/SUMMER 2021 | ISSUE 92 NAVAL ASSOCIATION OF CANADA

HMCS *Harry DeWolf* Completes Ice Trials

What can we Expect from the New Canadian Surface Combatant?

The NAC's Response to the PBO's Report on the CSC

Starshell

From the Editor
Adam Lajeunesse

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Cover Image: HMCS *Moncton* patrols the Caribbean during Operation CARIBBE on March 02, 2021. Source: Canadian Armed Forces Imagery.

As Canada rounds the corner on Covid-19 we are increasingly looking to the future and the challenges that an increasingly dangerous world will bring. In this edition of *Starshell,* we examine at some of the Navy's future capability, while authors offer their opinions on the directions we should take.

In February 2021, the Parliamentary Budget Officer (PBO) released his report on the government's options for the Canadian Surface Combatant. In response, the NAC released an in-depth research paper to provide some additional context and commentary on the PBO's work. We've reprinted that commentary here to offer a better understanding of the of the country's future combatant and its procurement process. Complimenting this work is Tim Choi's excellent assessment of the CSC's future capabilities and where those ships will fit into the growing great power competition facing Canada and the world.

While conversations about the CSC remain future-focused, the first naval vessel from the National Shipbuilding Strategy has finally been accepted into the RCN. HMCS *Harry DeWolf* has just finished its northern ice trials and we have an account of its maiden voyage into the ice.

Looking at Canada's evolving icebreaker program and its plans to expand the Coast Guard's Arctic presence, Roger Cyr presents his argument for why that capability should go to the Navy instead. The future of the country's submarine capability is another unanswered question as the Victoria-class approaches the end of its service life and the Navy starts to consider the fleet's replacement. Should new vessels be built in Canada?

Adam Lajeunesse

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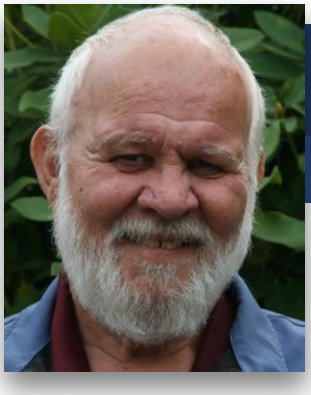
HMCS Victoria (Photo: RCN Twitter)



From the Bridge

Bill Conconi, National President

Moving on from Covid

As we are freed by Covid and have reached the halfway point in our year, it is time to reflect on our collective challenges and successes. I guess the biggest challenge has been Covid 19 and all the disruption it has caused across the board, forcing us to deviate from our norm as an association and do business differently. Our branches have not been able to meet in person, whether socially or professionally, or even to enjoy a friendly pint or meal together while learning more about our navy. We hope to soon get this astern.

The upside is our use of Zoom and Go To Meeting, which has allowed us to meet more as a National Association and to listen and participate in some excellent educational presentations. In a more social way, the virtual weepers held by NAC-VI is becoming a success and has been attended by NAC members across the country. In addition, virtual weepers has attracted and engaged some younger members of the RCN, and in the process may help attract new members.

Our Navy has been challenged as well. Covid has compromised training opportunities and is making the crewing of ships and the staffing of repair facilities more of a challenge. However, we have seen the first of the Harry DeWolf class commissioned, with more on the way and recently the relaunching of HMCS *Corner Brook* with a very up-to-date operational capability. And most importantly, our Navy has continued to meet its operational requirements.

Going forward from here will be a new normal for NAC. We will, I am sure, re-establish some long awaited, social opportunities, but add to this virtual meetings and the effective use of webinars and video/audio blogs, which will see us all more educated and informed. The NAC, and the Navy, have become much more effective in meaningful communication.

Of concern to all has been the impact of all this on the cadet movement, both Navy League Cadets and the Royal Canadian Sea Cadets. These are both vital in starting the process of quality recruitment for our Navy but also the health of small communities and their attendant youth and community leadership training. Across Canada, numbers are down, and training is compromised. In many cases, meeting places are not available as we have closed facilities. In the case of the Sea Cadets, we are now in year two of no summer camps which means no advanced training or networking. Both, a key element in building a vital program across the country where senior level cadets play a key role in the corps training programs. I challenge you all to reach out to your local corps, both Navy League and Sea Cadet, contact their Commanding Officers, and explore ways we can help. Here on the West Coast, both Rod Hughes and I have joined the local Navy League Branch (Victoria) and are actively working with them to help where we can. Our Branch has also made a donation to the local Navy League Division to help them acquire training resources. Our NAC Endowment Fund also has been, and continues to be, very supportive.

The Pandemic has also resulted in the cancellation of our BOA Gala for the last two years. A very special event that brought the extended Navy Community together to celebrate and honour our veterans while at the same time providing an opportunity to raise funds needed for our Naval Affairs Program. This event was

particularly appreciated by our corporate partners as it allowed them to support the Association while providing them with some well-deserved recognition. They have been excellent partners. To mitigate this, we have been working with a marketing company, Associated Marketing Professionals (AMP), to connect with potential partners. See page 9 of this *Starshell* to meet our partners, or visit our website to see who has recently come onboard. We will continue our efforts. It is early yet but we do plan on holding a BOA Gala for 2022 and getting back on track.

As we consider our course forward for the remainder of 2021 through 2022, one of our main goals will be to rebuild our social network and to work hard at building a more diverse membership. I invite you all to join me, and your Board, in this endeavour.

Have a great summer

Yours Aye

Bill Conconi

President Naval Association of Canada.

Keep in touch with the NAC

If you are receiving NAC News, but are not a member, please consider joining. Or, keep in touch through social media.

Join the NAC
navalassoc.ca/branches/

View our newest Naval Affairs work
navalassoc.ca/naval-affairs

Archived weekly NAC new links
navalassoc.ca/naval-affairs/nac-news/

Follow us on Twitter
@navalassn

Should you wish to donate or leave a memorial visit:
NAC Endowment Fund

NAC reference to assist veterans and/or seniors is located at Veteran's Corner

Photo: MARLANT Twitter

The Front Desk

Homeward Bound: Coming out of the Covid Fog

David Soule, Executive Director

I will admit up front that this has been a difficult "Front Desk" to write. I consider that my COVID life over the past 16 to 18 months has been much better than what I know many of you have endured. As Bill Conconi notes, we are emerging from the grip of the pandemic and looking forward to a return of a more normal routine. His words remind me of a return to Halifax after a long and tiring deployment in a submarine (the tiring part is another story in itself … worthy of a few pints!) We were all very excited to finally be home but exhausted, knowing that the next program had to be executed soon. My own emotions on arrival were mixed – very happy to be home to see family and friends but deep down I just wanted to be by myself for a few hours or days to de-stress!

So where are we as an organization and where do we have to go? It has certainly been one heck of a past 18 months or so. One could look at this experience in a very negative way, especially in terms of local social branch activities and in-person activities which have been non-existent for most, if not all. One could also take the view that, from a National perspective, there have been some very positive outcomes. NAC News continues to receive many positive comments and is widely read, *Starshell* continues to be published and in demand, NAC-Ottawa and other branch monthly presentations are now "broadcast" to members across the country, a NAC-VI branch Zoom bi-weekly "Weepers" social hour draws a modest but national crowd, and a very concerted effort from our Naval Affairs program to "speak" to Canadians about the need for a capable navy and the associated "total cost" and requirement aspects continues to evolve. This all speaks to delivering a good program to our members despite the challenges imposed by COVID.

As our President notes, challenges remain. The cancellation of the 2020 Battle of the Atlantic 75th anniversary event and associated conference has had an impact on our finances. The revenue from this event, and others like it, remains key to our Naval Affairs program and NAC's future as an organization. Like many organizations we have been challenged to hold our own in terms of membership numbers and our ability to run a viable program. While overall member numbers are down, this decline has not been that severe in my view. We know we must attract new and younger members, difficult when one cannot make personal contact with those who would be attracted to join NAC. All to say there is work to do. So, let's de-stress from COVID, take a break this Summer to rejuvenate, and get back into the fray early this Fall. For a start, just so you know, we are already looking at BOA Gala 2022.

NAC AGM 2021

The National AGM was held via GoToMeeting on 15 June with a good turnout from members. This is the fourth year in a row that we have held the AGM electronically and, in my view, is the way forward. The AGM agenda was largely focussed on addressing the requirements of the Not-for-Profit Corporations Act. A number of annual reports from various committees were tabled that reflect our activities over this past year. These can be found here. In the coming month or so I will be posting the draft minutes of the AGM and the finalized 2020 financial report prepared by our accounting firm Allen & Krauel.

NAC Board of Directors 2021-2022

During the AGM we welcomed Gerry Powell and Ray Leveque to the National Board. Gerry, who is a member of NAC-Ottawa, will be serving a one-year term and is tasked with leading our effort to implement the WildApricot system (with most of NAC's administrative and financial interfaces) as well as bring you – the NAC member – into the fold. While the devil is in the details, Gerry's proven attention to detail should lead us down a prudent path to achieving our goal. Ray Leveque hails from Winnipeg, is a branch member of NOAC Winnipeg, and has a lot of experience working with various charitable organizations. We look forward for his assistance with marketing and sponsorship.

Social Media, Sponsorship and Marketing

This may seem like a hodgepodge of topics but they are in many ways related. I must admit, like some of you, my social media life is still connected to a website with occasional forays into Facebook, LinkedIn and, when forced, Twitter; all without an active account.

Social Media – For many of our members and especially those we want to attract, the world is less about accessing a website and more connected to current social media offerings. Thanks to the efforts of Barry Walker and support from Roger Litwiller, we are now very active on a variety of social media like Twitter and Facebook. A recent survey indicates good growth in the number of folks following our posts. The challenge, of course, remains attracting them to join NAC.

Sponsorship – As Bill mentioned in his "From the Bridge," we have engaged with AMP to seek out sponsors, critical to supporting our Naval Affairs program. This initiative was a little slow getting off the ground as it is not our usual way of seeking sponsorships. All to say the results have been modest but I would say better than most organizations like ours have experienced. I would like to thank, on behalf of you, those organizations who stepped up: BAE Canada, Irving Shipbuilding, Seaspan Shipyards, Lockheed Martin Canada, Babcock Canada, and Prospectus Associates.

Marketing – While we use a professional team to assist us in "selling our products", the best advertising and means of attracting new members is through you, the member. You can show potential "recruits" the benefits of joining NAC, our "products", and have them meet other members you associate with. Why not invite a friend to a monthly presentation? So, this Fall, lets make a concerted effort to bring someone along to a social event or engage them in a conversation about the need for a capable navy and show them our web pages and social media accounts where they can see our professional products.

Administration - Some Worthwhile Disruption Will Continue

As you are all aware we have moved our email service and products such as NAC News to the WildApricot platform. This transfer will continue to develop over the summer with you, the member, offered the opportunity to manage your NAC services. (i.e. yes or no to NAC News, advance notice when Starshell will be published, how much information you share with other NAC members). We will also start the process of enabling you to renew membership on-line. This aspect might take some time but we are determined to make it work.

Late last year, NAC-VI donated funds to National so we could hire some administrative support. I am very pleased to introduce Nora Kennedy, who lives in Ottawa, to you. I am sure you will hear more from her in the coming months. Welcome aboard Nora!

So why this addition to our staff. Over the past several years we have evolved from a very part-time organization to one that has a played an active role in supporting our Navy, especially in regard naval affairs. Rather than focus on day-to-day more member related concerns and juggle the rest, the intent is for me or my relief to focus on larger issues, like developing and implementing a NAC strategic plan and associated workplans. All to say, while we remain a largely volunteer organization, activities such as the Naval Affairs programme have caused us to build a more professional outward face while identifying a need to become more disciplined in how we execute and plan our program.

NAC Awards 2021

The awards committee has met and approved this

year's submissions. In the coming weeks I will be advising branch presidents of those approved. Once that is complete, I will send an email blast to all members. Hopefully we will be able to present the relevant certificates and medallions to our deserving members in the Fall. I would also like mention that the 2020 awards will be mailed to branch presidents in the coming weeks.

2021 Endowment Grant Requests

The EF Committee has met and the BOD approved the grants for 2021. A list of these can be found in this edition of *Starshell* and on our website. To note, there was a heavier than normal request for grants this year (in excess of $80,000) and the total funds approved was in the order of $48,000. The National Board wants to thank John Anderson and his committee for their efforts to address these need. This is never an easy task.

We want to make a concerted effort on social media to advertise what organizations are awarded the grants so NAC gets credit for our contributions. Feel free to send me and *Starshell' s*editor Adam Lajeunesse (adam_lajeunesse@outlook.com) your pictures, links, etc … for any presentation related for the grant your branch is the sponsor for.

19-20 October 2021 – Arctic Workshop in Halifax

As mentioned in the last edition of *Starshell*, NAC, and the Brian Mulroney Institute of Government at StFX, in partnership with the RCN, will host a two-day workshop in Halifax tentatively scheduled for 19-20 October. The theme will be"Arctic Maritime Partnerships – Options and Opportunities for Cooperation in the North American Arctic". NAC Vice-President Bruce Belliveau and his team from NSNAC is working with Adam Lajeunesse (from the Institute at StFX and our NAC Naval Affairs research coordinator). This workshop will not be conducted in the more usual NAC conference format, in that attendance will be limited by invitation only. A number of NAC members who have expertise in this area will be participating and a small number of NAC members may be able to attend. We are also investigating the best and most affordable way to "broadcast" the plenary sessions to all NAC members, either live or after the event. More details on this activity will be forthcoming later in the summer.

New NAC Childrens Book

Our third in the series, and most likely last, children's book will be about maritime helicopters. The author, Dr Ann Griffiths is working hard on the story and we expect the book will be published later this coming Fall.

Like our earlier offerings, this book will be available for sale at this link in both French and English. If you know of a school or library that could use either or both language versions of these books please let me know. We will be supplying copies to the Family Resource Centres on both coasts and I will be working on a plan to donate to local public libraries as well once COVID restrictions are lifted.

2021 Navy Bike Ride

Your NAC team, which number some eight hard riding NAC members, led by our fearless leader Barry Walker, continues to ride. There is still time to join the fun and our team. If not, I would ask that you consider donating to our cause; the Royal Canadian Benevolent Fund and/or Support our Troops. Just scroll down on the linkedpage until you see the NAC logo. This event rides through the Summer so you have lots of time to get involved!

Concluding Remarks

We are emerging from the fog of Covid into a world that wants to get back on track quickly. It has been an exhausting time for all this past many months. That said, we must regroup and focus on selling our organization and continuing to execute what I think is a very professional program to support our Navy.

As I said earlier, take a breath, have a relaxing Covid-free Summer, and start to focus on getting back in the fray this Fall. And, as always, please do have a laugh or two every day - remember the logo on my favourite ballcap: "Life is good!".

NAC Endowment Fund - Distribution of 2021 Grants

Branch/Requesting Agency	Request	Description	Category	Grant Approved	Comments
NSNAC	HMCS SACKVILLE	WNPAAS - Ship's & Public's Safety	Past	$5,000	
NSNAC	Demonstrable Naval connection	Bursary - Post Secondary	Future	$1,500	
NAC-Montreal	Sea & Navy League Cadets	Best Sea Cadet Trophies (40)	Present	$5,000	Note 1
NAC-Montreal	Sea Cadet or Civilian Instructor	Scholarships - Post Secondary	Future		
NAC-Montreal	Sea & Navy League Cadets	Various projects (4)	Future		
NAC-Montreal	Seamanship Competition	Boat Building Kits (40)	Future		
NAC-O	Canadian War Museum	"Supply Line" education tool	Past	$2,500	
NAC-O	RCSC Education Fund	Scholarships-Post Secondary	Future	$5,000	
NAC-TO	Cdn Naval Tribute Project	HMCS YORK Monument	Past	$5,000	
NAC-Winnipeg	Naval Museum of Manitoba	Bilingual Display-LABRADOR/DEWOLF	Past	$2,000	
NAC-Edmonton	HMCS QUADRA Training Centre	Scholarships - Post Secondary	Future	$3,000	
NABC	Vanc. Naval Monument Society	Shipbuilding Memorial	Past	$3,000	
NACVI	Veterans Memorial Lodge	Creative Arts Program	Present	$3,000	
NACVI	Maritime Museum of BC	Artefact Storage Supplies	Future	$5,000	
		Subtotal		$40,000	

Funding request previously approved and distributed for 2021

NAC-O	MultiFaith Housing Initiative	Veteran's House BBQ & Seating Area	Present	$8,000	

Note 1: A single grant amount of $5,000 to cover all 4 NAC Montreal applications. NAC Montreal to determine allocation for each activity.

Total	$48,000
Past	$17,500
Present	$11,000
Future	$19,500

HMCS Calgary with the Japanese Ship Akebono (Photo: MARLANT twitter)

NAC Endowment Fund - Donors in 2020

The trustees of the NAC Endowment Fund would like to acknowledge the generosity of the following who donated to the fund in 2020.

$1,000 or Greater

Cooper, Henry A. (Mike)
Harrison, Ronald E.
Temple, L. G.

$500 to $999

Anderson, John
Barr, Peter
Campbell, Peter A. G.
Drent, Jan
Fletcher, David Mark
McIlwaine, Robert
Morres, Michael
Zuliani, Ray and Anne

$250 to $499

Addison, Tim
Bowen, Michael P
Collins, David
Currie, John
Fournier, Larry
Gooch, Prof Bryan N. S.
Greer, Derek
McCloy, Roderick H.
McKee, Fraser M.
Milne, Terry
Page, Simon
Plumsteel, Doug
Smith, Howie
Sparkes, Ken
Thomas, William C

$101 to $249

Abbott, Harry D.
Atwood, James
Bate, John S.
Bialkowski, W (Bill)
Brown, Daniel
Chance, Peter
Clayton, J. Lloyd
Cowie, Jeff
Edwards, Davis C.
Garnett, Gary
Gruber, John
Halle, Marcel
Harsch, Harry
Healey, E.J.
Hebb, Christopher H.
Herrndorf, Fred
Hoare, Dr Michael
Jacobson, Stan
Lapointe, Jocelyne S.
Marshall, Rowland C.
Millar, John S.
Moore, Russell D.
Nicholson, Charles
O'Reilly, Eileen
Pickford, John
Porter, H. Timothy
Roots, Fred
Schober, George
Skelton, Ron
Smith, Calvin A.H.
Spence, Hugh
Traves, Peter
Waddell, Harvey
Wan, King
Ward, Miriam
Watkins, Robert A,
White, Robert
Whiteley, Nigel
Williams, Edgar
Wyatt, Rachel

$100 or less

Abbott, Arthur H.
Allan, W. Robert
Austin, James
Bain, George
Baird, A. Melvin
Bialek, Murray
Bissell, Dorothy
Brodeur, Nigel D.
Brossard, Michel
Broughton, William J.
Brownfield, Ed
Buchholtzer, Guy Pierre
Cannon, Bill
Carpenter, David
Chipman, Peter A.
Clark, Michael L.
Coell, Sue
Conconi, Bill
Cotaras, Tino
Dodgson, James
Douglas, Alec
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Duffy, Joseph
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Edwards, Robert
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Ernst, Victor Garry
Evans, Gary
Evans, Roger A.
Fama, Joe
Flavelle, Lorne
Fleck, John
Freeman, David J.
Gard, William R.
Glass, Saul
Hare, H. Irvine
Hatton, Gary
Hendel, Hans
Hinchliffe, Douglas R.
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Hunt, Patrick
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Knight-Gorman, Anne
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Milne, Bill
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Mitchell, Robert
Moore, George A.
Murray, John B.
Nash, John
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Nicholson, Elizabeth
Nixon, Bob
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Porter, Leonard F.
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Shead, Bill
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Thomas, John
Trusler, Dr. George A.
Uhrich, Donald
Van Den Bossche, Mark
Varley, Chris
Ward, Peter
Watson, Mark
Wilson, Bill
Wilson, Don
Woznow, Harry
Wynnyk, J.
Yeates, Ian
Zwicker, Michael

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PROSPECTUS ASSOCIATES

NAC Endowment Fund

Annual Report to the Membership for 2020

Every year, the NAC Endowment Fund trustees provide a summary of the Fund activities for the previous year.

In 2020, the Fund received donations totaling just over $28,100. This is down slightly from previous years – perhaps due in part to COVID-19. Despite this, we were able to maintain our typical granting level; in doing this, your trustees considered that, in these pandemic times, it was more important than ever to continue to maintain the grants in support of worthwhile projects. We were very fortunate that the investment markets stood up well to COVID-19 and that we had the expert portfolio management provided by Odlum Brown – for 2020, we had an investment return of slightly over 7% and a portfolio market value of slightly over one million dollars at the end of the year. Those of you who knew Brooke Campbell (a trustee for many years and a great supporter of the Fund) will no doubt recall that it was his great wish to build the Fund to this level (and beyond!) – he would doubtless be very pleased!

The previous paragraph does not include donations or disbursements associated with the project (headed by Terry Milne and now nearing completion, but with financial management being provided by NAC-EF) to erect a monument at Victoria International Airport (adjacent to the BC Aviation Museum) to all those Canadian pilots who flew with the RN's fleet air arm during the Second World War, and most particularly to Lt Robert Hampton Gray, VC, DSC. No doubt a report on that will appear in due course.

We would particularly like to acknowledge the donations which we received in memory of Robert W. Brandreth-Gibbs, VAdm D. A. Collins, LCdr William (Bill) Evans, and Miriam Hughes.

In 2020, the Fund made grants totaling $38,000 (needing some difficult decisions as requests totaled almost $55,000).These were as follows:

Remember the Past

- $2,000 to the Crows Nest Officers Club in St John's, NL, toward the cost of refurbishing the U190 periscope;
- $5,000 to the project to build a New Brunswick Naval Memorial in Saint John, NB;
- A $5,000 contribution to NAC Toronto toward the Canadian Naval Tribute Project, which will recognize (and remind the public of) the contributions of distinguished RCN members over the years; and,
- Shipbuilder statue, to commemorate the BC shipbuilding industry, in North Vancouver, BC - $5,000.

Support Today's Navy

- $5,000 to NAC Naval Affairs to fund publication and distribution of a children's book on the need for a Navy; and,
- A $4,000 grant to the Broadmead Care Society to assist with the replacement of a vehicle (Broadmead has provided superlative care to many navy veterans over the years).

Build the Future

- $5,000 to the Royal Canadian Sea Cadet Education Fund (RCSCEF) for scholarships;
- $3,000 to the Quadra Foundation to fund scholarships for former HMCS Quadra cadets; and,
- $4,000 grant to RCSCC Chaudière (Toronto) to develop a navigation trainer for sea cadets.

(Some may appear to be mis-categorized – but where does "remembering the past" become public education under "support today's navy"?)

The need for funding to support the type of work we do is ongoing – typically, the deserving requests for grants are considerably in excess of what we are able to fund and there is every reason to expect that the level of requests will grow as the NAC Endowment Fund becomes better known. As your trustees, we ask your continuing support to assist us to grow the fund .Tax-deductible contributions can be made at any time (there is a donation form elsewhere in this issue of *Starshell*) and donations can also be made through Canada Helps, by donations of securities or as part of your estate planning.

In closing, two of our trustees (Michael Morres and Derek Greer) are now retiring, having each served as trustees for the past six years (and as members of national and branch boards for many years prior to that!). Their NAC-EF roles (chair and treasurer) are being taken on by John Anderson and Michael Zwicker, respectively. Finally, we welcome Bryn Weadon and Michael Zwicker, who have joined as trustees.

Thank you for your support!

Your trustees:

Michael Morres, Chair

Derek Greer, Treasurer

John Anderson

Richard Lewis

Doug Plumsteel

Photo (RCN Twitter)

Cape Scott White Ensign

David Cooper

As some of you might know, I was last navigator and Comm O of CAPE SCOTT. An interesting experience especially in trying to make an ETA having lost a knot or two over night due to wind etc. and no more speed available! In clearing out the ship for decommissioning in July 1970, the yeoman gave me her bunting White Ensign that was hauled down on February 15, 1965 when the Maple Leaf was hauled up on her return voyage from Easter Island, where she had been deployed in support of a medical expedition. Ever since, her ensign has been in a trunk for some 51 years, traveling back and forth across the country. I had always thought that it should be passed or returned to what is now FMF CAPE SCOTT and, having read that they just celebrated their 25th Anniversary of being "stood up", I am now prompted to do so. Unfortunately I may be a bit late for the actual event. Still, I have been in contact with Michel Thibault, the CO of FMC CS, who is keen to accept the ensign and have it appropriately framed and displayed in the building.

The ship's company at ceremonial division in full whites (#11's) with CO, Cdr Tony Law, wearing sword and medals at sea somewhere off South America, hauling down the White Ensign and hoisting the Maple Leaf flag which they actually made on board as they had sailed before it had been approved. The ship has also assembled some sort of band as there seems to be a PO waving a baton! She was an amazing ship in which to serve and able to manufacture many things - including flags!

What can we Expect from the new Canadian Surface Combatant?

Tim Choi

Reprinted with permission from the CDA Institute.

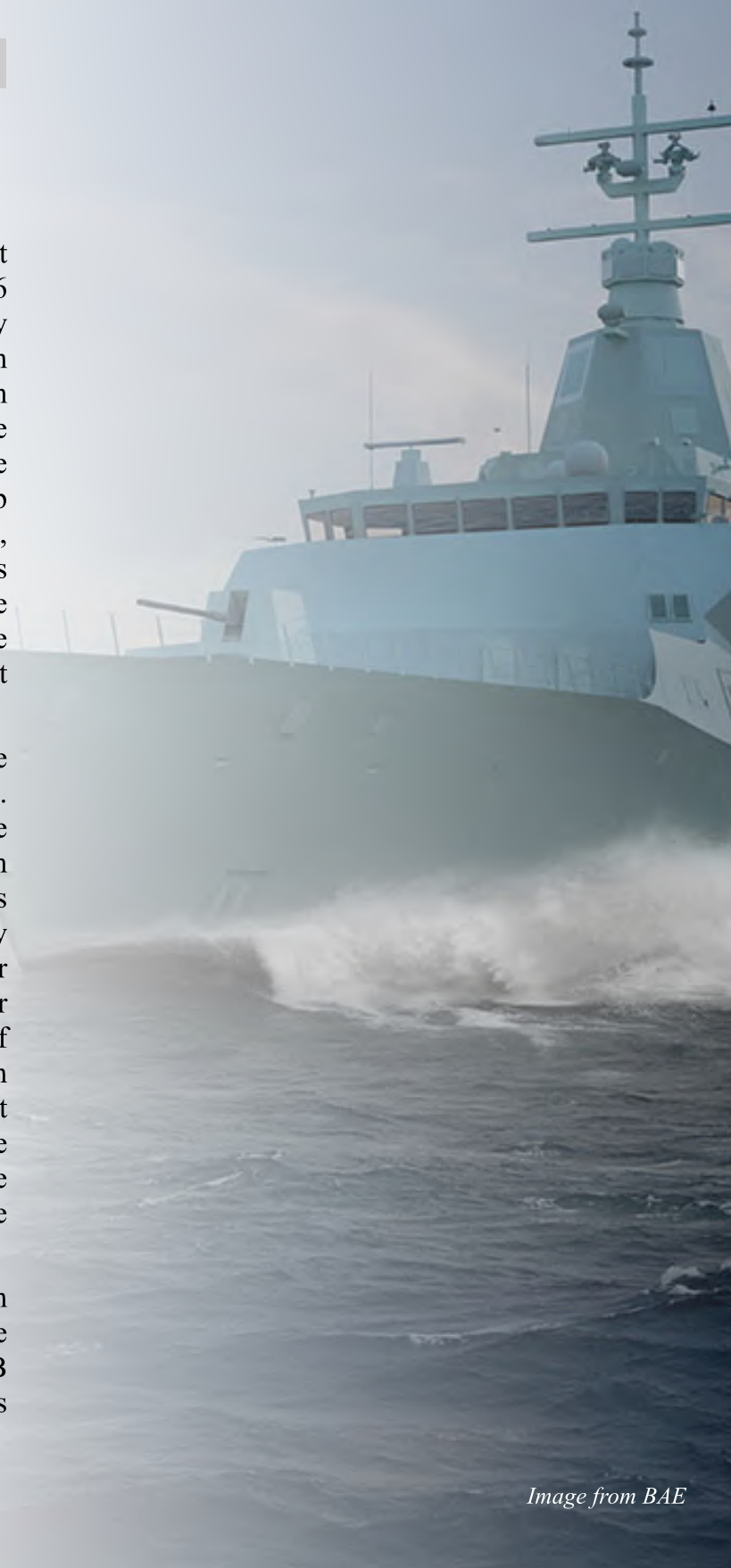

Image from BAE

What is the current status of the CSC procurement project?

Lockheed Martin and BAE won the contract last year with a design based on the British Type 26 global combat ship. Our version will be significantly more capable because it will be performing both anti-submarine warfare, which the British version does, as well as robust anti-air warfare, which the British leave to their Type 45 destroyers. When the CSC project began, initially the plan was to equip the Canadian Navy with three air defence destroyers, which would replace the three Iroquois class destroyers that were or would soon be decommissioned. The remaining vessels would have been built as general-purpose frigates that wouldn't have been as capable in a high-end warfare scenario.

In Canada we have two fleets that can't be shared, being split between the Atlantic and Pacific. If we have fifteen ships that means eight on one coast and seven on the other. That creates a problem if only three of those are air defence destroyers because one of those coasts is going to have only one destroyer. If that destroyer goes in for its regular maintenance, then that coast is going to have no air defence vessels at all. So, the idea is build all 15 of these ships to an identical standard in terms of both air defence and anti-submarine warfare so that they're all interchangeable. If any of them become unavailable, then you have other options with the same capability to perform missions across the entire spectrum of naval warfare and maritime security.

CSC is currently in the design phase, which includes reconciling design requirements. We have to integrate Canadian supply chains, meet our ITB (Industrial and Technological Benefits) requirements

to ensure that there's substantial Canadian involvement, and ensure that all these [elements] contribute towards a sustainable Canadian shipbuilding industry. The multistage process of the design phase is illustrated by the fact that several key components of the ship's systems have already been contracted for, such as the primary radar, sonars, and main gun. These show the confidence that the design and procurement teams have in the progress to date on integrating the various requirements into the ship.

What new capabilities will Canada's frigate replacements have, and what capabilities do they need to operate in an age of climate change and renewed great power competition?

The CSC can be more accurately described as a destroyer replacement, rather than simply a frigate replacement. If it goes according to plan, we'll be replacing our entire fleet of frigates with capabilities that go beyond what our original destroyers had, in terms of air defence, anti-submarine warfare and surface warfare. The CSCs could potentially have the long-range air defence capabilities that are enabled by the latest radars available, as well as 32 Mark 41 vertical launch system cells (Mk 41 VLS). A few months ago, the Navy finally released details regarding how it wants to fill those vertical launch system cells.

The first of these is the Evolved Sea Sparrow missile (ESSM), which we are using right now in our Halifax class frigates. They're the standard defensive anti-air missiles used by NATO and other Western/Allied navies, but they'll be available in much higher numbers because in the Mark 41 system, you can actually fit four of them in a single cell. That is a tremendous increase in self-defence capacity for our Navy vessels. The main new thing these ships will bring to bear in terms of anti-air warfare is that they'll now be able to use the Standard Missile 2 (SM-2) in the Block IIIC variant, and that's the newest version of the standard American area air defence missile. We lost that long-range anti-air capability when the Iroquois class was decommissioned, so it's a pretty important capability to not only bring back but extend to the rest of the fleet in the CSC.

We'll also be using the British Sea Ceptor missile for the ships' close-in defence system, which have a range similar to the Evolved Sea Sparrow (ESSM). They can turn very quickly right after launch to meet incoming missiles at a longer range. This provides the ability to shoot down future hypersonic and supersonic cruise missiles, which are becoming all the rage in this age of great power competition. The 24 Sea Ceptors, quad-packed into six cells, are being used in place of traditional gun-based defence systems like the current Phalanx due to the latter's lack of ability to reliably destroy high-speed targets before their wreckage can cause damage to the ship.

Regarding anti-small boat capabilities, there will be a pair of 30-millimeter guns, just above the hangar to deal with minor small surface threats. There is also a 5"/64 gun on the bow that will be manufactured by Leonardo and can fire rocket-assisted guided shells to provide naval

HMCS Ottawa fires a Seasparrow missile (Photo: RCN)

gunfire support. What's surprising is the provision of Tomahawk cruise missiles—a robust capability and probably somewhat unexpected for most of us who have been watching this play out not least, because it could be potentially politically sensitive. It's a fairly offensive weapon and not used purely for defensive purposes (though the latest Tomahawks could certainly be used defensively to destroy ships and shore-based anti-ship missile launchers, or, as we saw in Libya, surface-to-air missiles that might threaten friendly aircraft). As the 1980s protests against American cruise missile testing in Canada showed, the potential for public resistance is higher for long-range land-attack weapons than for other weapon types. Regardless, the Mark-41 cells containing the Tomahawks are the full-length version, so they can accommodate future missiles that are developed between now and the time that the ships are retired.

It's one way of future proofing our frigates in terms of future combat capability. We're not artificially restraining ourselves to smaller missiles out of a need for cost-savings. Of course, we should view this as more of a wish list. A lot of weapons could fill these missile cells, but it is uncertain whether all these missile types are included in the ammunition portion of the current CSC budget – so far only the SM-2 Blk IIICs are known to have been earmarked at a maximum of $500 million USD for 100 rounds, while a contract for an unspecified number of Sea Ceptors has also been signed. The CSC project is of course a political issue, and we don't know if future governments would really approve additional weapon purchases, especially the Tomahawk, which Canadians may not be so receptive to in the RCN inventory.

Navies don't really operate in a wartime situation for most of their life. These weapon fits are great for high-end conflict scenarios and worst-case emergencies, but most of the time, they'll be engaged in basic maritime security. The Type 26 is equipped with a dedicated mission bay that can be configured to have extra boats to bring supplies to shore, conduct rescue operations, and inspect suspicious vessels, or it can be fitted with containers for medical supplies and various 'soft security' capabilities. This is important considering Canada currently has no plans for a dedicated amphibious lift vessel.

What radar system is being considered for the new frigates? What are the political and military implications?

Lockheed has promised a SPY-7 active electronically scanned array radar (AESA) on board the Canadian Surface Combatant. It's meant to use the same subarray transmitters that have been installed in the Long-Range Discrimination Radar (LRDR) that the Americans are bringing online at Clear Air Force Base in Alaska, and which is used for ballistic missile defence. This tells us a few things—firstly, it's basically proven to be cold-weather-proof due to LRDR being in Alaska. I'm also told that the sub-arrays have been designed from the very start to be adapted for naval application and thus to some extent already salt water-proof. Secondly, because the hardware is essentially identical, Canada can rest assured that long-term maintenance and support for its radars will exist so long as the Americans continue to rely on the LRDR itself – there is less of a worry that we're buying a technology that will no longer be supported just a few years after its acquisition.

The SPY-7 technology allows for a smaller antenna than legacy options, while having the same range as the US Navy's current AEGIS radars on their destroyers and cruisers, but with an increased sensitivity. Canada is going to have a fleet of 15 Aegis frigates, which is something I don't think anybody would have imagined 10 – 15 years ago. For every single SPY-7 antenna, it'll be paired with an X-band illumination radar to help direct certain missiles while taking some load off of the main SPY-7 arrays. This is especially useful when there are more targets around and you don't

want to reduce the SPY-7's volume search capability to focus on directing missiles. Having both the SPY-7 and the X-band radars means the ships can search, track, and illuminate targets at the same time—none needs to be sacrificed because we have a radar for each one of those things. It's a pretty robust capability that we're installing and MDA in Richmond, BC, has an incredibly large role in ensuring this comes to pass as they are on deck to build the X-band illumination radars.

What is the status of the government's efforts to develop a new icebreaker? Will climate change in the Arctic impact the CCG icebreaker program?

On May 6, 2021, the Trudeau government made the surprising announcement that Canada will now buy two Polar icebreakers. Additionally, instead of building them both in the same yard after a competition, they will each be built at Seaspan Vancouver Shipyards and Davie Shipbuilding in Quebec.

For the last decade or so since the National Shipbuilding Strategy was established, the formal goal was to build only one Polar icebreaker to replace the current heavy icebreaker, CCGS *Louis St. Laurent*. The corollary implication has thus been that the new Polar would operate similarly to the *St. Laurent* – that is, for most of the year but not really sailing in the worst winter periods, which would be when it needs to go into maintenance. Having two Polars solves the maintenance issue by allowing one ship to be present while the other is south for maintenance, enabling year-round presence in the Arctic. While winter sea traffic in the Canadian Arctic is nearly non-existent, having the ability to operate north in winter allows important science missions to be carried out that, until now, would not have been possible. Northern communities would also have greater flexibility and reliability for the delivery of their goods and cargo, which may help drive down the currently enormous cost of living.

The fact that one Polar will go to each of the heretofore competing yards was likely for politically expedient reasons. While the government states that building both in the same yard would mean the second ship would take too long to enter service, this ignores that much of modern shipbuilding takes place with significant overlaps between construction schedules. For example, while our Arctic and Offshore Patrol

Artist concept of a new Polar Icebreaker
(Image: Government of Canada)

Vessels take four to five years from start to finish, they are still being delivered roughly once per year because the yard doesn't wait until the first vessel is completely done before starting the second. Similarly, if both Polars were built at the same yard, I wouldn't expect much more than two or three years between the first and second ship, which is within the scheduling uncertainties of having two different shipyards each with their own list of projects and somewhat different construction methods.

Nonetheless, in Canadian procurement, it's all the steps leading up to construction that's the major cause of delay: once things get rolling, delays aren't as significant. So, if ordering from both yards precludes one or the other from trying to protest the award to the other yard or politicians trying to curry favour from one province versus another with associated delays, that would ensure we can proceed to construction as soon as possible. It may not be the most efficient way of building ships, but if it commits the government to actually get them built without even more delays or, worse, cancellations, then I wish them the best.

As for whether climate change will reduce the need for the new icebreakers, I would say no. Polar sea ice is not like ice cubes in a glass of water: they don't melt uniformly and aren't made identically. There are parts that are weaker and parts that are tougher. As global warming takes its toll on the ice, the weaker ice melts first, freeing the harder multiyear ice to float along with the currents. Sadly, for Canada, the combination of those currents and the myriad islands that make up our Arctic means that all of the hard ice gets jammed in the Northwest Passages and fjords. So even though the polar sea ice gets weakened every year, Canada still gets stuck with a lot of the worst ice, and heavy icebreakers are still necessary. This contrasts with the Russian side of the Arctic, which has much fewer islands and the currents actually help carry sea ice away from the Northern Sea Route, making it a more realistic shipping route for a greater part of the year.

Timothy Choi is completing his Ph.D. at the University of Calgary's Centre for Military, Security and Strategic Studies, where his dissertation is entitled, "Maritime Strategies of the North: The Seapower of Smaller Maritime Forces in an Era of Broadened Security." It asks how the Danish, Norwegian, and Canadian maritime forces developed in response to the adoption and legitimization of the 200 nautical mile exclusive economic zone, and whether smaller forces have generalizable differences in such responses compared to larger ones. This has seen him sailing with Danish and Norwegian patrol vessels to gain deeper insights into the tactical level of peacetime naval activities. He is a former Smith Richardson Predoctoral Fellow at Yale University's International Security Studies, where he worked with Professor Paul Kennedy, and is also a Research Fellow at Dalhousie University's Centre for the Study of Security and Development and a Fellow with the Canadian Global Affairs Institute. He serves on the editorial board of and is the photo editor at the Canadian Naval Review, and is currently a consultant on naval affairs for the British American Security Information Council.

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The PBO's Report on the Canadian Surface Combatant

Comments and Considerations from the Naval Association of Canada

In March 2021, the Naval Association of Canada published its comments and response to the Parliamentary Budget Officer's report on the Canadian Surface Combatant Program.

In early February, the Naval Association of Canada (NAC) released an in-depth research paper outlining the inherent complexities of costing and comparing shipbuilding projects. The focus of the paper was the Canadian Surface Combatant (CSC) Project, which is now garnering considerable attention in the wake of the recent Parliamentary Budget Officer (PBO) Report.[1] The NAC's aim was to highlight both the broader strategic value and economic advantages of domestic shipbuilding and the challenges of comparing different warship designs. In doing so, the intent was to offer a more holistic understanding of Canada's approach to shipbuilding and the CSC Project.

Now that the PBO has released cost estimates and comparisons between the CSC and other warship designs, the NAC would like to comment on certain assumptions and conclusions within that Report. As with our past work, the intent is not to criticize the PBO, who has produced a realistic and sophisticated cost analysis, but rather to reemphasise the layers of complexity and uncertainty in shipbuilding and to provide context to assist readers in their evaluation of the Report.

The PBO Report - Overview

The PBO's Report on the CSC was prepared in response to a request from the House of Commons Standing Committee on Government Operations and Estimates. The assigned task was to examine the cost of the existing CSC Project to replace both the current fleet of 12 Halifax-class frigates and three Iroquois-class destroyers with a new fleet of 15 multi-purpose warships, based on the BAE Global Combat Ship (GCS) design[2] and to cost compare two other designs – the US Navy Constellation-class frigate, based on the FREMM European multi-mission frigate, and the British Type 31e general-purpose frigate based on the Danish Iver Huitfeldt design. While such comparisons may appear appropriate to the layman, it is the NAC's opinion that they are of marginal value to the overall discussion. The CSC Project is already too far along in the development process to consider an abrupt halt and a shift to a new platform. The significant costs that have already been incurred, combined with the additional costs of contract cancellations, and the major disruption to the project schedule would be too severe. Canada does not need a repeat of the Maritime Helicopter Project.

It should be noted that while a capabilities comparison was purposefully excluded from the PBO's work, the report was clear that it recognized the "differences in capabilities" between the various ship designs.[3] This omission is critical to understanding the complexity of the comparisons and evaluating the Report. In order to be relevant in international affairs, Canada needs a versatile fleet of high-end naval combatants that are capable of "maritime security, counterterrorism and counterpiracy operations, escort duties, and presence missions."[4] While the CSC will also need to undertake 'low-end' constabulary missions, the

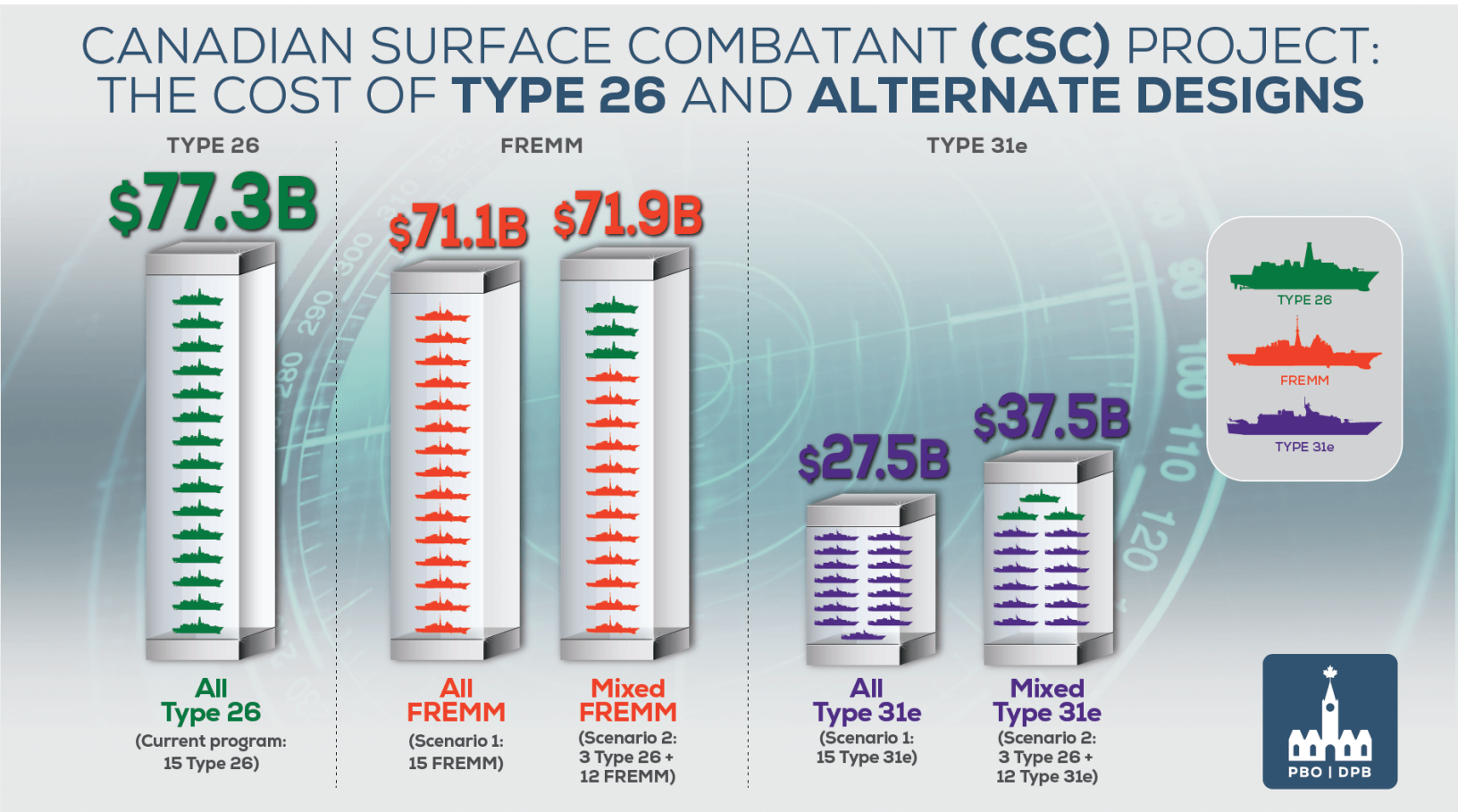
rationale underpinning the Navy itself is its ability to conduct full spectrum maritime operations, which include the ability to engage in combat operations.

The PBO's CSC costing estimate, which is an update on that undertaken in 2019,[5] indicates a $7.5 billion increase in the Project's overall budget, owing largely to updates in the ship's specifications and timelines. While the PBO's costing analysis appears both thorough and fair, the CSC build complexity and requirements reconciliation effort have been underestimated. Canada's history working with the CSC Project has shown how much time and cost is involved making alterations to even a cutting-edge design. Additionally, the idea that the timeframe for the selection of a new design could be shortened is simply unrealistic. Canada lacks the necessary staff to undertake that work on a condensed schedule, while simultaneously continuing the ongoing CSC Project activities. If the Department of National Defence (DND) had the capacity to complete that work faster, it would have done so on the current Type 26 design modifications.

PBO Scenario One - Recompete and Replace the T26 Design

Following the cost analyses depicted above, the PBO Report then presents two scenarios, each with two options, for consideration. The first scenario entails stopping the design and procurement activity on the current Type 26 design chosen by Canada in 2019 and initiating a new competitive procurement to build either the US FREMM or the Type 31e. Given that the Type 26 design has already been deemed the preferred solution, most closely aligned with Canada's requirements, this raises serious questions. How the Government of Canada, which values a fair, open, and transparent process in all Defence Procurement, would endeavour to preclude the Type 26 design from a subsequent competition is left unstated in the PBO Report. Certainly, such action would pose a real avenue for legal challenge by the current industrial team and create a foundation for successful litigation, with additional costs to all parties.

In the NAC's view, the switch from the Type 26 to any new ship design would present significant risk for negligible potential returns. While the US FREMM is a close comparison to the Type 26/CSC design in that it is a general-purpose frigate capable of conducting anti-air, anti-surface, and anti-submarine operations, there would be only a marginal savings in switching to the that design. Those savings were also estimated by the PBO without considering the demanding



contractual terms and conditions imposed on the Type 26 team that proposed this design solution. These terms, imposed by Canada, carry additional costs associated with the commitments made by the industrial team to achieve Canada's stringent requirements in support of the Industrial and Technological Benefits (ITB) and Value Proposition (VP) policy. None of the costs associated with these contractual commitments appear to have been considered in the PBO's cost comparisons.

A fleet of 15 US FREMM warships is costed by the PBO at $71.1 billion – roughly 9% less expensive than 15 Type 26 and well within the PBO's self-defined 20% margin of error.[6] However, a switch to the US FREMM would result in the loss of four or more years of detailed options analysis and project definition and would stretch Canada's fleet replacement program even further into the future. Moreover, such a change would undoubtedly tax the Halifax-class frigates to the limit, and perhaps leave Canada without a functioning navy as those ships become obsolete before being replaced. The PBO explicitly excludes any costs arising from an interruption of production at the Irving Shipbuilding and among its subcontractors.[7] Yet any such delay would leave the shipyard and its suppliers with a multi-year gap in orders. The result would be the disbanding of the workforce, assembled and trained over many years and with considerable investment. It would also pose significant new risks associated with the inability to efficiently resume production.

While opting to switch to the Type 31e design at a cost of $27.5 billion for a fleet of 15, which is roughly 65% cheaper than the current CSC Project, may have allure at a superficial level, the assumption that the Type 31e would be a suitable replacement is deeply flawed. First, The PBO's cost estimates for that ship are not from the United Kingdom but are based on the Danish build of the Iver Huitfeldt class frigate, which was a largely commercial design by Odense Maritime Technology (OMT). Not only is the price comparison not founded on the unique Canadian requirements, including the CSC contractual terms and conditions, but in the previous competitive solicitation OMT, despite qualifying as a CSC Short-Listed Respondent, chose not to offer this design solution as a Lead Warship Designer. Assuming a renewed interest by another commercial firm to propose the Type 31e to Canada requires a significant leap of faith.

In terms of combat capability, the PBO notes that the Type 31e possesses "more modest capabilities." This a profound understatement. Indeed, this class of ship is not only less capable – but likely incapable of performing many of the tasks that are required of the CSC. A significant hull redesign would have to be undertaken to accommodate the larger crew and other survivability requirements like damage control systems, gas-tight citadels, and fitted degaussing coils. Designed as a 'light frigate' or even a well armed patrol ship, the Type 31e does not have significant weapons capacity built into the design and was never intended to carry the full suite of sensors and weapons that the RCN has long identified as a basic requirement. The projected crew size (of around 100) is also much smaller than the current projected CSC crew of 204. That smaller complement will leave the ship unable to undertake continuous operations – an essential requirement in sustained combat situations. Virtually all Type 31e sensor and weapon systems would have to be replaced, and new systems sourced, evaluated and integrated into the combat system. Unlike the Type 26 and US FREMM designs, this lighter warship would have to be radically augmented to meet Canadian requirements, or the requirements would have to be completely re-written to accommodate a less capable platform.

The reliability of the Type 31e costing is also somewhat suspect. The Iver Huitfeldt class was not actually built in Denmark, but rather was constructed in blocks in Estonia and Lithuania, and then transported to Denmark for assembly and fit out of the modules. In the build process the Danish employed their StanFlex system,[8] which allows for change out of modular systems and separates the cost of components (weapons and sensor packages) from the overall cost estimates of the ship. In fitting out the ships the Danes also reused older weapons from other ships. This is significant, as the combat systems of a modern warship are typically the most expensive part of the total ship package and they are also the primary driver of cost escalation. In essence, the Iver Huitfeldt class was built with relatively cheap labour and using a fitted for (but not with) approach to weapons and sensors. Hence the construction and the associated

costs are not comparable to any other purpose-built warship.

The task of securing bids to provide a US FREMM or Type 31e replacement is by no means certain. Canada's CSC Request for Proposals in 2016 qualified only three bidders – in part because industry did not trust Canada to be a reliable customer. Changing tack at this point and after so many years and so much investment by previous bidders would be hard to overcome and could damage Canada's reputation further. Which firm would invest the millions of dollars needed to prepare the bid that would offer the Type 31e or a US FREMM?

The Mixed Fleet Scenarios

The PBO's second scenario suggests switching to a mixed fleet of Type 26 and US FREMM or Type 31e warships. In addition to all of the concerns outlined above, in this scenario the Navy would be forced to continue the redesign process on the existing CSC Project while undertaking an entirely new set of modifications from scratch. In the case of the CSC Project, most of this work is already being done, not by DND, but by engineers at Irving Shipbuilding. The same applies to similar work being done in Vancouver on the Joint Support Ship project being built by Seaspan. With DND and industry running at capacity, sourcing the expertise for the second team, required to progress this work on a second design, would be a significant challenge – likely leading to additional cost inflation and delay. In the Naval Association's opinion, the possibility of achieving a satisfactory outcome in four years as the PBO has suggested, is extremely remote.

Additionally, switching to a second design as part of a mixed fleet would lead to missed opportunities for efficiencies and cost savings. Shipyards enjoy a learning curve as they progress with a building program.[9] Typically over time, efficiencies improve, and costs go down. A hybrid fleet would reset that learning curve after completion of Type 26 design hull number three after the switch to a US FREMM or Type 31e design.

A mixed fleet would also require DND to support two separate classes of major combatants. This would create added administrative, logistical, and maintenance burdens and limit the possibility of cost savings by buying in bulk. The mixed fleet approach would also create longer-term challenges in terms of crewing and training inefficiencies for operators and engineers. Operating two classes of ships would necessitate different training requirements and ashore support infrastructure.[10] Initially, the CSC Project envisioned a mixed fleet of two different variants (Task Group Command/Air Defence and General Purpose). However, the RCN dismissed this approach for precisely these reasons.

Conclusion

Canada is a maritime nation, dependant upon the free flow of goods on the world's seas and the security of our maritime alliances. All Canadians should recognise that the Canadian Surface Combatant ships, when they enter service, will be making a significant contribution to Canada's defence and security, by enhancing global stability, advancing Canadian values and interests, and helping to ensure our economic prosperity for the next 40 years. The CSC Project is the most expensive government acquisition in this country's history. Despite the cost, we must maintain a combat-capable globally deployable navy.

From an economic perspective, significant industrial disruption would result from the considerable delay caused by switching to a different design. The already significant sunk costs accrued thus far, compounded by a delay to the project of four or more years, would result in little if any real benefits. Moreover, all aspects of Canada's terms and conditions including the ITB/VP policy, and the significant legal implications, would all have to be factored into such a bold move. In the case of the US FREMM design only marginal cost savings would be achieved. Similarly, a switch to a fleet of Type 31e warships would be strategically ill-advised and would leave Canada with a navy incapable of performing most of its critical combat functions.

Since the PRO Report was released on 24 February there has been a litany of commentary from the media and various "experts" in this domain regarding the supposedly upward spiraling cost of the

CSC Project. In the NAC's opinion this could have been avoided if DND had been forthright in explaining the circumstances, context, and validity of its initial costing of the project and had communicated to all concerned more information on the status of the project as it progressed.

In conclusion, while the Naval Association congratulates the PBO for its exemplary work, we have serious reservations regarding the scenarios and potential options presented to Government. While cost is important, so too is value. We are pleased to be able to contribute this additional layer of operational and strategic context and add some additional clarity to this most important investment by Canada.

Notes

[1] Parliamentary Budget Office, "The Cost of Canada's Surface Combatants: 2021 Update and Options Analysis," (2021).

[2] In the UK the Global Combat Ship is known as the Type 26 frigate

[3] Parliamentary Budget Office, "2021 Update," 1.

[4] Forecast International, "Warship Forecast: Type 31," (February 2021), 3.

[5] Parliamentary Budget Office, "2019 Update" (2019).

[6] Ibid, 3.

[7] Ibid, 11.

[8] Steve Wills, "LCS Versus the Danish Strawman," Centre for International Maritime Security (February 19, 2015).

[9] Eric Lerhe, "Fleet Replacement and the 'Build at Home' Premium," Vimy Papers (Conference of Defence Associations, 2016), 10-11.

[10] Christopher Nucci, "The Future Canadian Surface Combatant," *Proceedings* 146/11/1,413 (November 2020).

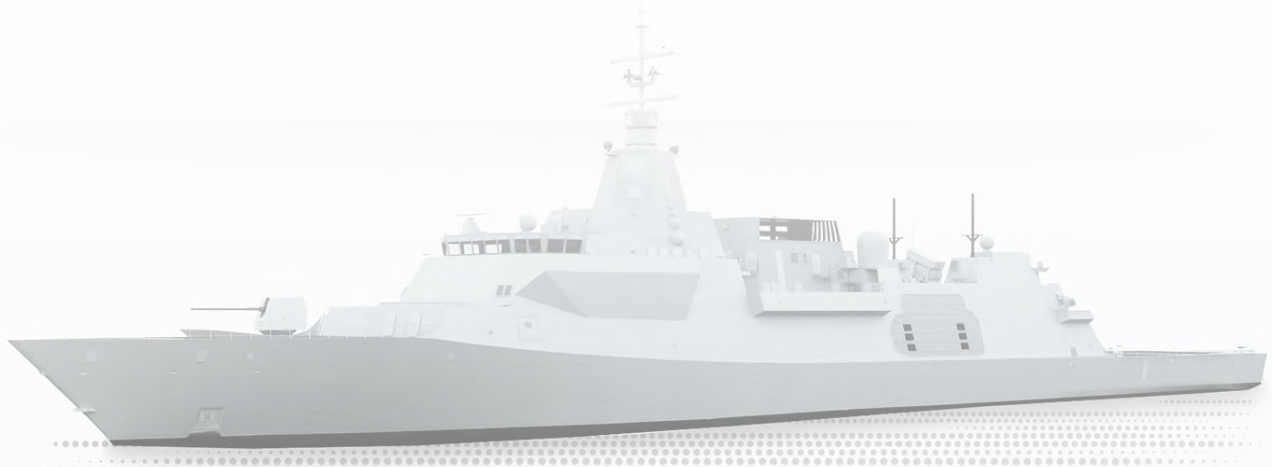


Image: Lockheed Martin)

The Newfoundland and Labrador Branch of NAC 40th Anniversary

Edgar Williams | Branch Secretary

On October 5, 1980, a meeting to discuss the formation of a Newfoundland and Labrador Branch of NAC was held at the Crow's Nest Officers Club in St. John's. The following were in attendance: Tony Ayre, Tom Irvine, Robert Furlong, Jim Conway, Rex Andrews, George Douglas, and Fred Bragg. The objectives of the Newfoundland Branch were outlined as follows:

1. To promote the seagoing element of the Armed Forces;
2. To maintain an active interest in Canada's maritime affairs and specifically such affairs that affect Newfoundland and Labrador;
3. To support and encourage maritime minded youth groups.

It was agreed at this meeting to proceed with the formation of a Branch with those attending composing an interim committee. Tom Irvine was appointed Chairman of the Interim Committee.

On November 19, 1980, in spite of gale force winds and snow, eight brave souls (Andrews, Ayre, Bragg, Dempster, Douglas, Fraser, Furlong, and Irvine) attended a meeting at the Crow's Nest and the following motion was proposed and carried unanimously:

"This group of retired naval officers make application to the National President to form a Branch of the Naval Officers Association of Canada to be known as the Naval Officers Association of Newfoundland."

The following were elected Branch officers for a one-year term effective November 19, 1980: Rex Andrews, President; Bruce Fraser, Vice-President; Jim Conway, Treasurer.

On December 8, 1980, NOAC National President Bill Wilson confirmed the appointment of Rex Andrews as President of the Newfoundland Branch of NOAC. Consequently, the Naval Officers Association of Newfoundland, a Branch of the Naval Officers Association of Canada (the Newfoundland Branch), was established 40 years ago on November 19, 1980.

Of interest is the fact that the first President Rex Andrews owned a cottage overlooking the ocean in the scenic and historic settlement of Ferryland located about 100 km south of St. John's. An annual tradition that began more than thirty years ago saw Branch members and spouses invited to the Andrews plantation on the second Saturday of September for an afternoon event consisting of the opportunity to socialize and partake of a potluck meal. Surprisingly, the weather for these annual outings was generally ideal. This tradition continued after the passing of Rex Andrews by his son John and daughter Janette. Included in this tradition was an annual group photograph with the white ensign in the background. Attached is a photo from 2004. Unfortunately, Covid 19 has caused a cancellation of this event for 2020 but we hope to resume the tradition in 2021.

The NL branch has remained very active and has supported the national NAC over the years. NLNAC Member Ed Williams served on the national Board 1989-2004 during which time he served as national President. Current NAC Treasurer Tom Conway served as treasurer of the NL branch for almost thirty years. The NL Branch hosted the NAC national AGM in St. John's in 1992 on the fiftieth anniversary of the Crow's Nest Officers' Club, attended by the largest number of delegates ever. In 1997, the Branch again hosted the NAC AGM held on the five hundredth anniversary of the discovery of Newfoundland and Labrador by John Cabot. More recently, the Branch successfully hosted the 2017 NAC AGM.

Many Branch members who are former members of the UNTD were responsible for hosting in St. John's the UNTD 75th Anniversary Reunion, September 2018. This was a most successful event attended by a large number of UNTDs from across the country.

While there is much more that could be added, suffice it to say that the relatively small Branch has been an important part of NAC and to the community of St. John's, the naval Reserve Unit HMCS *Cabot* and CFS Station St. John's as we celebrate forty years of active service in support of our navy.

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

In February, after a stint in quarantine, hundreds of sailors from five RCN warships departed for Task Group Exercise (TGEX) 21-01 off Vancouver Island. Joined by the US Navy and Coast Guard, HMCS *Calgary*, *Whitehorse*, *Brandon*, *Saskatoon*, and *Regina* deployed for the exercise, which was designed to maintain proficiency in seamanship, warfare, and working with allies and partners. It was also intended to further prepare Canadian warships for deployment. There, the ships were engaged in anti-air warfare exercises with vindicator drones, at which HMCS *Regina* and *Calgary* fired a total of four Evolved Sea Sparrow Missiles.

The exercise also saw HMCS *Victoria* return to sea and complete its Basic Single Submarine Readiness Training, signaling its return to normal readiness after being in extended readiness since September 2020. The boat's sonar operators are now better equipped than ever before after receiving an upgrade to the sonar suite during the submarine's last docking work period with the installation of the BQQ-10 sonar suite, which not only aligns capabilities with Canada's allies, but

Members of the embarked air detachment aboard HMCS Calgary load a torpedo on a CH-148 Cyclone (Photo: Lynette Ai Dang, CAF)

Sailor First Class Jeremy Théberge, signals a CH-148 Cyclone helicopter performing utility trials on HMCS Harry DeWolf (Photo: S1 Justin Spinello, CAF)

also effectively changes the game for the Royal Canadian Navy's Victoria-class submarine

Following TGEX 21-01, HMCS *Calgary*, along with its embarked Cyclone helicopter and embedded Naval Tactical Operations Group boarding party, departed for the Pacific for Operation *Projection*, where it participated in a cooperative deployment with HMAS *Anzac* and *Sirius*, as well as the Japanese Ship *Akebono*, on April 8th and 9th. Following Projection, *Calgary* travelled west to the Indian Ocean and Arabian Sea to participate in Operation *Artemis* as part of Combined Task Force 150, under the command of Cmdre Dan Charlebois. While on *Artemis*, Calgary worked with Combined Task Force (CTF) 150 to combat smuggling operations funding terrorist activity.

HMCS *Saskatoon* and *Brandon* spent the early Spring patrolling the Eastern Pacific Ocean, contributing to multinational counter-narcotics efforts under Operation *Caribbe*. On March 21, *Brandon* assisted the United States Coast Guard in the capture and seizure of 870 kg of cocaine with an approximate street value of $33 million USD. Just two days later, *Saskatoon* was able to intercept a suspicious vessel of its own and assisted in the capture and seizure of 250 kg of cocaine and 45 kg of marijuana. This contraband has an approximate street value of $11 million USD.

This Spring, HMCS *Halifax* deployed on its rotation as flagship for Standing NATO Maritime Group One (SNMG1) while on Operation *Reassurance* – a continuous presence operation that contributes to the alliance's collective defence. In Europe, *Halifax* is training and improving its capabilities by conducting regular "Wednesday War" scenarios. These scenarios are led by a small group of sailors that put the whole ship's company to the test with either an emergency or warfare serial.

HMCS *Harry DeWolf*, the RCN's first Arctic and Offshore Patrol Ship (AOPS), left Halifax on February 9 and returned March 3, after testing the ship's performance in the icy waters off of Labrador and Nunavut. Accompanying the crew were representatives of Irving Shipbuilding.

Members of HMCS Calgary conduct counter-smuggling operations in the Arabian Sea during OPERATION ARTEMIS and as part of Combined Task Force 150, on June 5, 2021 (Photo: Please credit: Corporal Lynette Ai Dang, CAF)

NSS Update

Canada's government fleets continue to grow as the National Shipbuilding Strategy progresses. In May, the Final Mega Block was completed for the future HMCS *Max Bernays*, Canada's Third Arctic and Offshore Patrol Ship. Only three months earlier, Irving Shipbuilding Inc. celebrated a Keel Laying Ceremony for the future AOPS HMCS *William Hall* – which should be launched later this year. The first AOPS, HMCS *Harry DeWolf*, spent the Spring conducting trials, including Arctic operations, a live firing exercise of the 25mm cannon, and warm weather sea trials near the Caribbean Islands in April. The second ship of the class, HMCS *Margaret Brooke* is lining up for delivery this summer as the shipbuilder conducted sea trials last month that showed the good functioning of several key systems. Lastly, the fifth AOPS, HMCS *Frédérick Rolette*, has entered production.

On the West Coast, Seaspan Shipyards announced that it has cut steel and started full-rate construction of its Offshore Oceanographic Science Vessel. This important milestone kicks off construction of the third class of ships Seaspan is building under the NSS. The vessel will deliver much-needed fleet capability for the Canadian Coast Guard and an oceanographic science platform for Fisheries and Oceans Canada. Seaspan's work on the Joint Support Ship project has also reached another milestone, with the recent delivery of its two main engines to the Vancouver Shipyards. Manufactured in Germany, these will power the Protecteur-class ships at up to 20 knots. Work to integrate these engines into the ship blocks will begin in the summer of 2021. The JSS project has been at full rate construction since June 2020 and has thus far substantially completed 53 of its 123 blocks.

Canada's icebreaking fleet has also received a political boost this spring with the announcement that the Government of Canada will move forward with the construction of two Polar icebreakers, rather than the previously announced one. Seaspan is now slated to build one of these, with the second to be built by Davie Shipbuilding of Lévis, Quebec, pending the successful completion of the ongoing selection process as the third strategic partner for large ships construction under the NSS.

First Steel cut on the future HMCS Frédérick Rolette (Photo: Irving Shipbuilding)

HMCS *Corner Brook* is Back in the Water

After a decade out of the water, HMCS *Corner Brook* is finally back in the sea after rolling out from the repair facility at Ogden Point. The submarine has not been operational since 2011 when it struck the bottom of the ocean off the West Coast. Bad luck followed in port after a fire broke out while docked in August 2019 while, last spring, one of the submarine's ballast tanks ruptured. Since then, it has undergone significant repair and overhaul work in recent years and will undergo sea trials late this year. During the extended repair process, *Corner Brook* received a new communication mast to allow high-speed and secure satellite communications as well as equipment to allow it to fire modernized torpedoes.

The ship will remain alongside at Esquimalt until sea trials in late 2021 to verify system performance and support crew training, with a full return to service expected in 2022. The remaining Victoria-class submarines will receive these upgrades in the years to come as they go into refit.

HMCS Corner Brook at the Esquimalt Graving Dock
(Photo: Mike Goluboff, MARPAC)

Canadian Naval Reserve Anniversary

From Stephen Rybak

"…then went down to the great waters,

to the cold and boredom,

the laughter and the fight,

Grocer's clerks, they are and brokers

Turned Quartermasters, signalmen and stokers,

Salesmen swift of the tongue and glib,

With a new cut to their jib;

Yachtsmen and farmers, garage men and tailors,

Men from factories and offices and stores, now turned to sailors"

While the segment of poem (author unknown) refers to the Citizen Sailors who answered the call of their nation and joined the war effort as members of the Royal Canadian Naval Volunteer Reserve (and the RCNR) it underscores the reason why we will be celebrating the centennial of Canada's Naval Reserve in 2023 - honouring the Citizen Sailor.

The University Naval Training Divisions Association (UNTDA) will be joining with other naval-orientated groups and the Naval Reserve to mark the 100th anniversary of the creation of the Royal Canadian Naval Volunteer Reserve and the Royal Canadian Naval Reserve in January 1923.

The UNTDA has initiated a number of projects to celebrate the contributions of Canadian reservists to the Royal Canadian Navy - a program which looks beyond the narrow scope and window of its own 25-year existence as an organization. All members of the naval community in Canada are welcome to join in this national celebration.

Nearly 1,800 Reservists and Wrens, who enlisted in the Navy's war effort at Naval Reserve Divisions, made the supreme sacrifice and died on active service. But they are largely unknown and forgotten. Some of these Naval Reservists died in the 24 ships we remember at Battle of Atlantic. Many others died in motor torpedo boats, motor gun boats, in the fleet air arm, in more than 40 merchant ships, in combined operations, in shore establishments, and in 60+ Royal Navy ships.

These Canadians joined the naval service "for Hostilities Only" and served in the RCNVR, RCNR and WRCNS. Their names can be found on the Halifax memorial and on more than 600 grave makers around the world, but their names are not well-known at the Naval Reserve Divisions where they joined. The UNTDA will be sponsoring a virtual cenotaph legacy project to identify these reservists, tell their stories of sacrifice and link them to today's Naval Reserve Divisions where they can be appropriately remembered.

We've set in motion a national reunion for all naval reserve officer and cadets, past and present for May 9-12, 2023 in Victoria. Hotels have been booked and a program is being put in place. A room is being held for you. Check the UNTDA web site, www.UNTD.org, for additional information as it becomes available.

We are also exploring the creation of a commemorative coin to honour Admiral Walter Hose, the father of the Reserves - and the RCN. And, of course, we'll have an obligatory lapel pin for your collection. And a ball cap.

The UNTDA is also leveraging the centennial of the Naval Reserve to find and connect with more graduates of officer cadet training programs that replaced the UNTD since 1969. If you, or you know of someone who was in the ROUTP, NROC, UNTDv2, or current RESO, invite him or her to join with us in celebrating a century of accomplishments by Canada's Citizen Sailors.

We are looking forward to working with the Naval Reserve and its 24 Divisions across Canada - and with you - to shine a light on the continuing story of Canada's volunteers for sea service.

The Northern lights can be seen beyond HMCS Harry DeWolf during Cold Weather Trials near Frobisher Bay (Photo: Corporal David Veldman)

This account is distilled from the Icebreaking Trials Report authored by Richard J. Pougnet, Navigating Officer (HDW) from March 2021 and generously provided by Commander Cory Gleason (HDW)

HMCS *Harry DeWolf* Completes Ice Trials

The RCN's first Arctic and Offshore Patrol Ship has completed its inaugural trip into Canada's northern waters, testing its ice-strengthened hull and winterized equipment against the Arctic ice. These Icebreaking and Arctic Environment trials were some of the last steps in HCMS *Harry DeWolf's* post-acceptance trials and had to be completed before commissioning. Their purpose was to assess the ability of the ship to operate both in frigid temperatures, down to -29° Celsius, and medium first year ice, up to one metre thick.

To test her systems, *Harry DeWolf* went looking for ice. Initially, the mid-Labrador coast and the region off south-eastern Baffin Island seemed the most promising locations for the kinds of ice that the ship needed to find, with a target window of February 9 to March 5. The ships' staff worked closely with Canadian Ice Services, Defense Research and Development Canada, and the National Research Council to monitor the ice formations to ensure that conditions were just right.

Ice and weather conditions in the Arctic are rarely predictable however and a broad temperature abnormality resulted in warm weather that slowed the formation of sea ice along the East Coast and Eastern Arctic – five to six weeks behind the historical averages. Ambient air temperatures were, likewise, far too high to get the required conditions for the Arctic Environment Trials. At the time of departure from Halifax, the only maritime location with the required temperatures was the geographic North Pole. The possibility of finding appropriate ice off Labrador was shot and the ship was forced to look farther north to Eastern Baffin.

It was a longer trip than had been planned and fuel management was a priority. The limited time and

analysis of an AOPS' fuel consumption injected some risk into the planning cycle but an estimate was done based on the Basic Single Ship Readiness Training (October 13-23, 2020) and Proficiency Patrol circumnavigation of Newfoundland (November 3-26, 2020). With that rough data in hand, consumption rates were calculated to determine a "worst-case" arrival percentage in Halifax of 40% remaining fuel. As a contingency due to the uncertainty in consumption while conducting icebreaking operations, diplomatic clearance was sought and approved for a brief fuel stop in Nuuk if needed.

Owing to the harsh nature of the Arctic Environment on personnel, the need for specialized Arctic clothing for *Harry DeWolf* staff was identified in the early planning phases of the ship's delivery; yet here there were shortcomings. In the years leading up to these trials, the logistics community has known that procuring naval Arctic clothing would be essential, but the procurement effort was slower than the ship's construction. As a result, the ship's staff received a temporary loan of Canadian Army winter warfare clothing through base logistics. Even this equipment was of limited availability and only a select group of 18 sailors were able to obtain that clothing.

After embarking PMO and Irving Shipbuilding staff in Halifax, *Harry DeWolf* set sail for Conception Bay, Newfoundland on February 9, 2021. During this leg of the journey, strong winds and freezing spray were prevalent along the coast of Nova Scotia and the approaches to Newfoundland. This required flexibility to mitigate these conditions and minimize the impact on operations. The ship was able to successfully execute weather avoidance and embark personnel in Conception Bay while preparing for the transit north to the trials area.

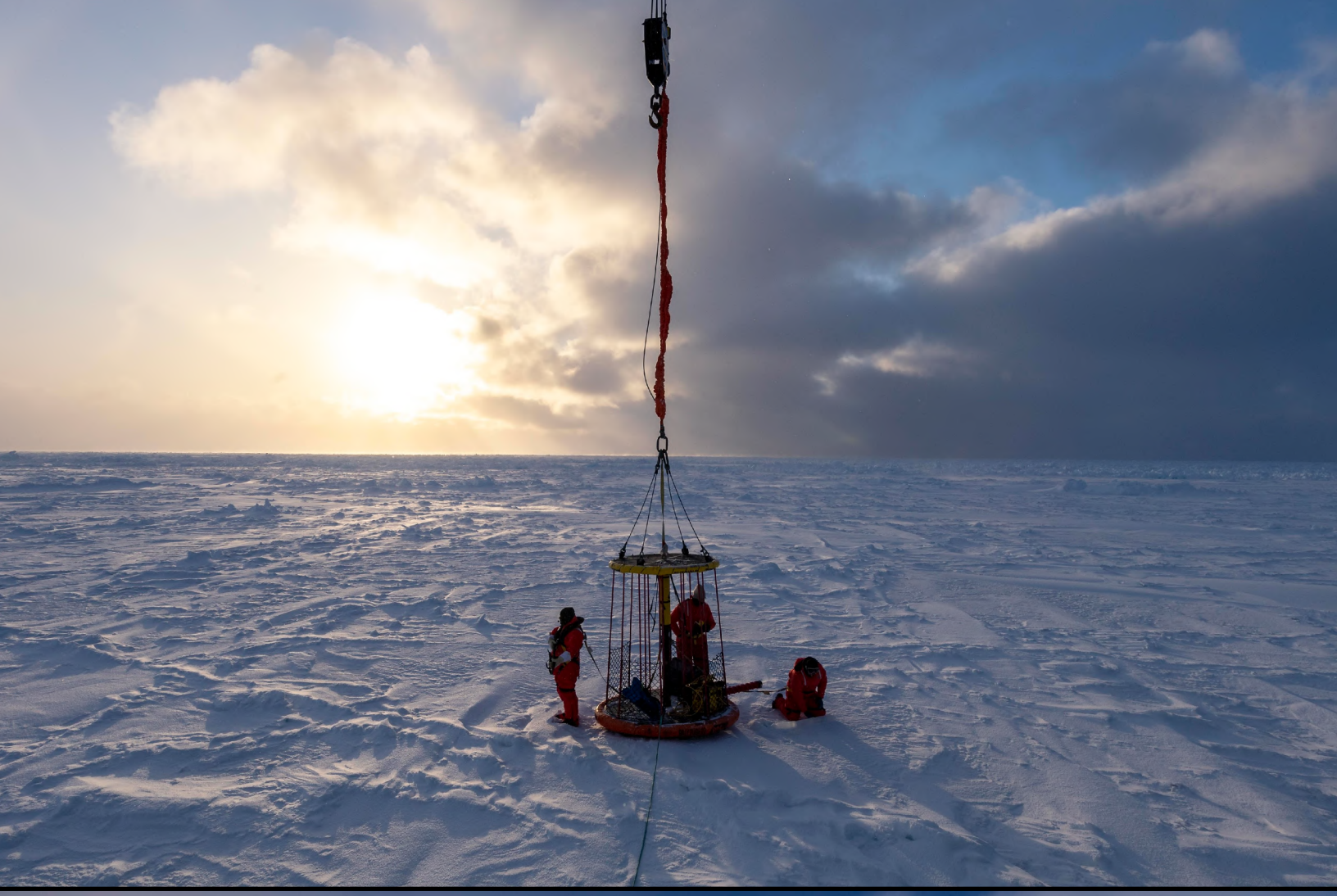
On February 15, 2021, while heading north, the new ship entered sea-ice in the form of pancake ice and remained either in the sea-ice or just outside to dampen the sea spray. While transiting and entering colder air and sea surface temperatures, the process of winterizing the ship was conducted. The checklists from the Winterization Manual and the RCN Arctic Operations Manuals were referenced by the Operations, Naval Technical, and Logistics departments. These winterization efforts were conducted over a period of three days. With further practice and the lessons learned from the process, this time period could probably be shortened.

On February 17, *Harry DeWolf* encountered its first bergy bits while air and sea temperatures began to fit the trial parameters for a full-power trial on the propulsion plant. After defining a clear patrol box, an engines trial was conducted through a series of continuous turns.

Overnight, the ship encountered several floes of 9/10th concentration of grey ice with some thin first year ice. This intensified into the morning and *Harry DeWolf* operated in the thickening ice throughout the 18th.

While operating continuously in this area, it was essential to have competent and trusted Bridge Watchkeepers operating independently. Throughout the transit from Halifax, the Navigating Officer held daily professional development sessions on ice operations and Arctic navigation. The embarked Canadian Coast Guard, Captain Alex Gosselin, also provided an insightful lecture on ship handling in ice. The Commanding Officer himself remained on the bridge conducting 36 hours of BWK proficiency

Polar bears spotted near HMCS Harry DeWolf (Photo by Corporal David Veldman, CAF)



Civlian contractors and crew members conduct ice operations during Cold Weather Trials near Frobisher Bay (Photo: Corporal David Veldman, CAF)

training in ice.

Even a short time working in ice highlighted some important lessons. Speed had to be carefully managed when entering an ice floe, anything above three knots was to be avoided. Controlling the ship was also found to be somewhat difficult while operating in ice during high winds. At a speed of three knots, early and proactive use of helm and opposing engine movements were necessary. At night, the fitted EO/IR camera provided exceptional early warning of ice and detection of open water. Likewise, the use of fitted searchlights and Ice RADAR were found to be crucial in detecting ice as well as open-water leads. Overall, the trials confirmed what Arctic operators have understood for decades, avoiding ice is always better than entering it.

On February 19, the latest image analysis showed that the target conditions required for the trial were located approximately 75 nautical miles away. This necessitated a continuous transit through worsening conditions overnight. Over the course of the day, an average speed through 2/10ths concentration was found to be four to five knots.

Finding the required conditions proved to be difficult due to the scale of the ice charts and their delayed nature. Under these circumstances, an air asset, whether helicopter or UAV, would have proved incredibly useful in locating the required ice floe. Throughout the day, the ice regime continued to grow more severe, with conditions worsening. At nightfall, the ice conditions around the ship appeared to be within those required for the trial and the decision was made to stop and remain within a floe overnight.

At the break of dawn on February 20, *Harry DeWolf* disembarked the ice coring team onto the floe to assess the ice thickness and strength. The goal of this trial was to prove that an AOPS could maintain a speed of three knots in one metre of medium first year ice at a strength of 500KPa. The trial required an approach run in ice-free water and then entry into the ice floe while maintaining full power. During the trial, the ship exceeded all expectations, reaching a maximum speed of 8.5 knots and, towards the end of the run, a propulsion converter tripped leaving HDW with a single shaft. Despite this engineering issue a speed in excess of three knots was maintained.

The ship's performance in frigid temperatures was a second consideration. The ambient air temperatures were forecasted to dramatically increase over the coming days, leaving the 21st as the best opportunity to conduct Arctic Environment Trials. The day was spent progressing these trial requirements and testing various deck and engineering equipment. On completion of trials, the ship remained in the ice floe overnight.

On the 22nd, the Ice Endurance run was conducted. For this trial, *Harry DeWolf* had to operate at full power for four hours. Various engineering issues arose throughout the trial however and it was deemed an unsuccessful run that needed to be repeated. The Naval Technical Department rectified the issues and discovered a large amount of ice clogging the sea bays. A valuable lesson was learned. An AOPS had to operate an MDG forward and aft to allow the water recirculation to thaw both sea bays. The trial was then successfully repeated with no engineering issues and the ship was parked overnight in an ice floe.

The last trial, completed on February 23, was the star manoeuvre, in which the ship had to turn about in her own channel in ice of a minimum thickness of one metre. An appropriate ice floe was located, core samples were taken to confirm the thickness, and *Harry DeWolf* successfully completed the trial. Despite an ice ramming cycle being done at 60rpm, this test required *Harry DeWolf* to achieve full power in both ahead and astern directions. As a result, there were points at which the ship was proceeding astern at a speed exceeding ten knots. Despite this abnormal procedure, the trial was conducted in a safe manner by monitoring the headway or sternway in a freshly cut channel.

Having completed her ice-trials, the ship transited out of the area, towards open water. The transit out was similar to the transit in and the lessons learned earlier were applied.

A short excursion North, the ship's activities nevertheless proved its ability to work in the Arctic ice and began the process of re-establishing the Royal Canadian Navy's regular Arctic presence.

Civlian contractors and crew members conduct ice operations during Cold Weather Trials near Frobisher Bay (Photo: Corporal David Veldman, CAF)

Calling on Ex-Yukons

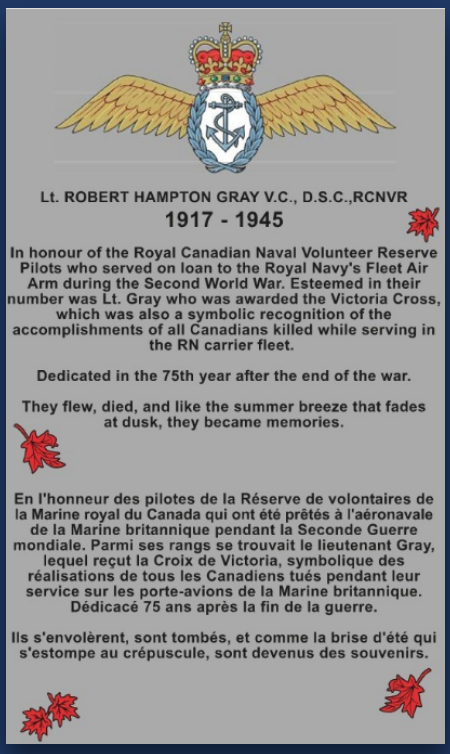
Some of our readers may remember Captain Steve Foldesi. He commanded HMC ships *Skeena* and Provider and was COND between 1988 and 1990. He is long retired and living in Beachmere Queensland in Australia. He came to us with the following story.

A neighbour of his has just purchased this HMCS *Yukon* ex-RCN cap at a local garage sale. The question is how did it get here.

Yukon transferred to the West Coast in 1965. All old salts will remember that as part of Paul Hellyer's attempt to destroy the Navy, the old blues became illegal on 1 April 1971. In 1970 she conducted a cruise Down Under in company with Provider and Mackenzie. Therefore, in all likelihood, the cap was left behind at this time.

If anyone can identify the cap's rightful owner and he would like it back for old times' sake, Steve is confident that its current owner would gladly return it for its purchase price: $4 Australian.

Steve can be reached at canki@bigpond.com.



Gray Memorial Erected

Lt Gray, VC, DSC, RCNVR Monument which a Project Team of "4 Old Navy Guys" put together over the past 2+ years and had installed on the grounds of the British Columbia Aviation Museum at the Victoria Airport, Sidney, BC.

The plan had been to install and later have a dedication ceremony on August 9, 2020, the 75th anniversary of "Hammy's" death, and the end of the Second World War. Covid-19 caused numerous delays but the monument did get installed on January 5, 2021, without fanfare. A dedication ceremony awaits government relaxation of Covid-19 "crowd" regulations.

Canada's New Icebreakers should be Naval Ships

Roger Cyr, OMM, CD

The Canadian government has announced it will build two heavy Arctic icebreakers for the Coast Guard. The 150-metre vessels will be able to operate in heavy ice conditions, and will allow Canada to maintain a year-round presence in the region. The first ship is to be christened the John G. Diefenbaker, and no doubt the second one will be named the Pierre Elliott Trudeau. But Canada is not the only country that is interested in reaping the benefits that the accessible Arctic waters have to offer. A number of nations have already expressed a strong interest in exploring the Arctic and are building ships to achieve this. For Canada, the construction of two heavy icebreakers makes a lot of sense given the vast economic potential that beckons. The Canadian Coast Guard now fields the world's second largest icebreaking fleet with 18 icebreakers of varying sizes and capability. But these ships are not armed, and as such they are incapable of carrying out any military enforcement or respond to any threat. Hence, for Canada to have a strong and respected presence in Arctic waters, the two planned icebreakers need to be naval ships and they need to be armed with naval weapons.

HMCS Labrador in the Canadian Arctic (Photo: Library and Archives Canada, MIKAN 4951158)

The Royal Canadian Navy's past fleet included an icebreaker, HMCS *Labrador*, commissioned on July 8, 1954. The *Labrador* was the first RCN ship to sail across the Northwest Passage, returning to home port in Halifax via the Panama Canal, the first to circumnavigate North America in a single voyage. She had a displacement of 6,490 tons and a speed of 12 knots. The ship's biggest contribution was mapping the waterways and establishing Canadian sovereignty in the Arctic. At the time, it was feared US icebreakers would move into the Arctic, jeopardizing Canada's claims. The *Labrador* was armed with two 40mm guns. She was later transferred to the Coast Guard, and eventually disposed of.

Given the melting Arctic ice and the ensuing potential natural resources that could abound, there are now global interests in the Arctic. Many countries are openly challenging Canada's assertion of sovereignty over the territory. Both Russia and China are now preparing to exploit the region by developing and building armed icebreakers. Other countries, including the USA, are also taking steps to ensure their access to the

region for various reasons such as sea routes and untapped resources.

Russia is the leading icebreaking power with 40 operational vessels, including 27 ocean-going icebreakers. It plans to build 11 new ships, Project 23550 class corvettes, they will be armed icebreakers. The first ship of this project was recently launched, the *Ivan Papanin*, which will be able to carry containerized cruise missile launchers. This ship and others in its class may ultimately have a 100mm main gun, instead of a 76mm one as originally planned. The 9,000-ton displacement ships can reportedly break through ice up to five and a half feet thick. Russia expects these to be more combat-oriented vessels. They will be fitted with a close-in protection system, such as the new Pantsir-ME, which features both command-guided surface-to-air missiles and a pair of six-barrel 30mm rotary cannons, would help shield the ship from incoming threats.

Russian ship, Ivan Papanin (Photo: Wikimedia)

For now, Russia's Project 23550 ships remain the most visible example of this northern trend and are likely to be the first to enter operational service. The Russian Navy expects to formally commission *Ivan Papanin* in 2023, by which time the full extent of its plans for armed icebreakers and other ice-capable ships will have become clearer. Whatever the size and scope of Russia's combat, ice-capable fleet might look like in the end, it is hardly surprising that it is interested in developing these capabilities given how strategic the Arctic has become in recent years.

China is also one of several countries investing heavily in modernizing and expanding icebreaker capacity. China's Shipbuilding Industry Corporation has presented a model and technical specifications for a massive conventionally powered icebreaker. This will have a displacement of 26,000 tons and the ability to break through ice three meters-thick continuously at two knots, this Polar Class 2 vessel comes close to Russia's latest nuclear-powered *Arktika* icebreakers in terms of size and ice-breaking capability.

The proposed vessel is a larger and more capable derivative of China's first icebreaker the *Xue Long*, which launched in 2018. Just like its predecessor, this ship will feature dual-directional icebreaking capabilities and facilities and hangars for two helicopters. All of this is in support of the Chinese government's economic ambitions for the region, which is referred to as the Polar Silk Road.

The US Navy already has a well-established history of operations above the Arctic Circle. It has traditionally conducted most of its Arctic operations using submarines or patrol aircraft, both of which could more deftly avoid the threat of floating pack ice in the far north. However, given the changing ice conditions, this has already prompted the USA to dramatically expand its military presence in the region. The Navy is considering sending surface ships to patrol the Arctic and it could establish a new strategic port facility in the Bering Sea to support those patrols in the future. The US government also indicatedthat it will be expanding its military bases in Washington state with a focus on the Arctic.

Russia, as well as the United States, and to a lesser extent China, among others, has been working hard to expand their military presence in the Arctic and build up additional infrastructure to support growing deployments of ships. All are aware of the strategic importance of the north. The United States and others have also begun to

express more interest in actual warships being better suited to this frigid environment and giving them more firepower.

As the Arctic sea ice continues to recede, it is opening up new maritime trade routes and other economic opportunities. Canada has great potential for economic growth and prosperity, but other players in the world may seek to infringe on this potential, hence the possibility of conflict over competing interests.

Icebreakers are rated globally according to the World Meteorological Organization, on a scale of 1 to 7, with 1 the highest, being year-round operation in the Arctic, and 7 the lowest, being Summer operation in first year ice. Canada is now building the Arctic Offshore Patrol Ships (AOPS). These ships will have a displacement of 6,340 tons, and are classified as Polar Class 5, which is defined as year-round operation in medium first-year ice. These warships are not fitted with substantial naval armament and have no close-in protection system. They are no match against the warship icebreakers and ice capable warships of other nations. The Navy needs to sail the two heavy icebreakers announced by the government if it is to enforce Arctic surveillance and protection and enforce Canada's sovereignty. These two new Diefenbaker-class heavy icebreakers, classified Polar Class 2, year-round operation in moderate multi-year ice conditions, and will have a displacement of 23,000 tons. The ships should be built as naval ships and be fitted with state-of-the-art naval combat systems. They would be the navy's capital ships for the Arctic fleet. There should be northern squadrons on each coast, each of the squadrons comprising one heavy icebreaker and three AOPSs. This way, the Navy would be in better position to ensure a credible and permanent presence in Arctic waters.

Global climate change has already led to a steady reduction in the size of the polar ice cap and shortened the periods of the year where ice presents the greatest risks, which has in turn opened the region to greater activity and geopolitical competition. It behooves Canada to ensure it has the military might to oversee and protect this precious, ecologically sensitive, and vital region of the world.

HMCS Harry DeWolf Cold Weather Trials (Photo: Corporal David Veldman, Canadian Armed Forces)

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Stalker 22 Memorial Unveiled

A stone monument was unveiled this April on the first anniversary of a naval helicopter crash that claimed the lives of six Canadian Forces personnel. The top of the obelisk at the entrance of Canadian Forces Base Shearwater in Nova Scotia includes the crest of the Cyclone helicopter with its call sign, Stalker 22, embedded in the stone. The call sign has been permanently retired, in memory of the largest single-day loss of life for the military in more than a decade.

A Message from the Commanders of the RCN and RCAF

A year ago, we lost six members of our team in a tragic accident. Today, we pay tribute to our fallen as we unveil a memorial at the Shearwater Aviation Park at 12 Wing Shearwater in Nova Scotia, and remember their dedication, commitment, and devotion to serving their country, and their communities. The Royal Canadian Air Force (RCAF) and Royal Canadian Navy (RCN) hold their family and friends in our thoughts, and we grieve with them knowing that they continue to mourn the loss of their loved ones. We stand with you and continue to offer our unwavering support.

We are also thinking of the crew of Her Majesty's Canadian Ship *Fredericton* and 423 Maritime Helicopter Squadron, who demonstrated great compassion and resilience. And again, we would like to convey our gratitude to our Allies who worked tirelessly to provide their assistance during the difficult days that followed this accident.

As we remember our fallen, we look to the many tributes from across the nation, and around the world, knowing they will never be forgotten. As we bow our heads in silence, we will remember:

- Master Corporal Matthew Cousins, Airborne Electronic Sensor Operator, from Guelph, ON
- Sub-Lieutenant Abbigail Cowbrough, Marine Systems Engineering Officer, from Toronto, ON
- Captain Kevin Hagen, Pilot, from Nanaimo, BC
- Captain Brenden MacDonald, Pilot, from New Glasgow, NS
- Captain Maxime Miron-Morin, Air Combat Systems Officer, from Trois-Rivières, QC
- Sub-Lieutenant Matthew Pyke, Naval Warfare Officer, from Truro, NS

Vice Admiral C.A. Baines | Commander RCN

Chief Petty Officer First Class D.H. Steeves | RCN Command Chief Petty Officer

Lieutenant General A.D. Meinzinger | Commander RCAF

Chief Warrant Officer J.R.D. Gaudreault | RCAF Command Chief Warrant Officer

Canadian Naval Heritage

The serialized naval memoirs of the late RAdm Robert Philip ‘Bob’ Welland DSC & Bar, MiD, psc, Officer of the Legion of Merit (USA), RCN

'All Press is Good Press'

Where last we left off, Welland had taken command of the new cruiser Ontario and was tasked with tracking down the 'Russian ship' Sverdlov in a war game off the West Coast

The two frigate captains and I walked back to our ships. Dal Gibson was captain of the *Jonquiere*, he was a specialist signals officer, he had commanded the west-coast naval radio communication centre at Aldergrove B.C. He had also been in charge of the secret radio direction-finding stations spread across the country from Masset in the Queen Charlottes to Alert at the top of the world, and on to Bermuda. Radio operators sat at consoles reading Russian traffic, taking bearings of interesting transmissions including the position reports of our own warships. All this information was collated at the 'Tilley' building in Ottawa; it was a vast network of radio spies. They also collaborated with their US Navy and Royal Navy counterparts.

“The Admiral is dreaming in radio technicolour,” said Gibson, “He can promise whatever, but those radio operators will have the position of *Sverdlov* in the hands of the exercise conductors in two minutes.” He added, “They were my boys, they're nosy, and they enjoy sharing secrets.”

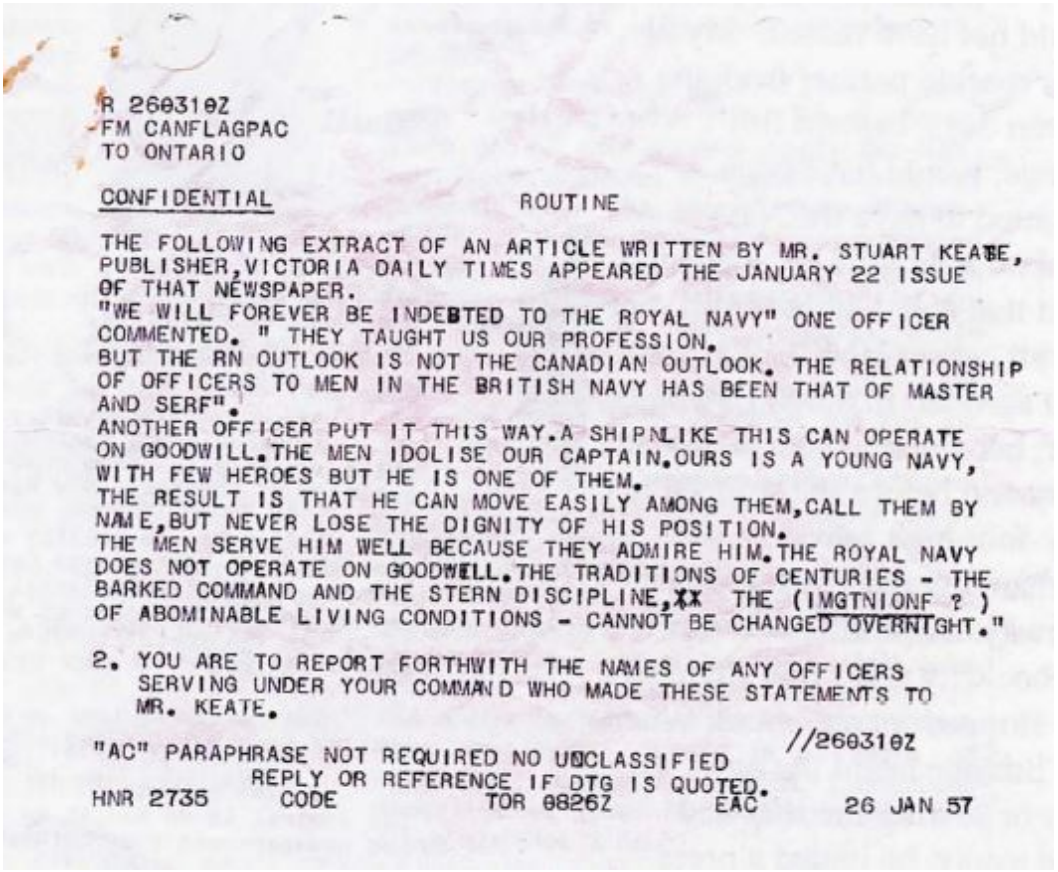
George Mcfarlane was captain of the frigate *Stettler,* he was a jolly optimist at about the same degree as Gibson was a realistic cynic, "I'm sure you'll find a way," said George. I had them both in my cabin for a drink and we sailed the next day. I was pretty sure the *Sverdlov* exercise would be a farce. The most difficult part of sinking a warship in the vast ocean is to find it and I was telling them where I was to within a mile; of course they'd find me and sink me and the exercise would be hailed as a huge success! We shall see.

Our first port of call was Honolulu. We were given the US Navy standard dockside welcome, complete with leis, strumming guitars and wavy hips supplied by the Chamber of Commerce. Hawaii always looked and smelt and sounded better than I ever imagined. Everyone should live there. To return some of the American hospitality we entertained them by conducting the 'Sunset Ceremony.' We used all cadets from the three ships. They fired a 'feu de joie' as the flag came down; our twelve- piece band played appropriate music. The music for a sunset ceremony needs to be carefully chosen depending on the nature of the audience; the Chief P.O. in charge of the band and I had done that together.

As the sun set, I was standing on our quarterdeck beside the wife of the admiral in charge of the huge Pearl Harbour base. The rippled rifle fire had died away, the cadets stood tall and straight and still. That charming lady was already wet-eyed, "Your boys are so young and beautiful and disciplined", she remarked, and that was even before they sang the Navy hymn, which includes the emotional line 'For those in peril on the sea'. The last music was 'God Save the Queen'. The bandmaster added special effects, perhaps because it as my choice for the finale. The lady took my

arm, tears running down her sweet face, "Captain", she said, "I just love that tune, My Country 'tis of Thee."

On arrival, our dozen young sea cadets were welcomed and taken ashore by the US Navy sea cadets. Mike was introduced to the son of a US naval captain and taken to the beach. I was picked up by a car from the Royal Hawaiian hotel and officiated at the unveiling of a painting of the Queen in a new suite designed for special Canadian, British, and Aussie guests. The manager then gave me a room for the five days we were to stay. I turned it over to the wardroom officers as our swim headquarters on Waikiki beach, which was just outside the door.



R 260310Z
FM CANFLAGPAC
TO ONTARIO

CONFIDENTIAL ROUTINE

THE FOLLOWING EXTRACT OF AN ARTICLE WRITTEN BY MR. STUART KEATE, PUBLISHER, VICTORIA DAILY TIMES APPEARED THE JANUARY 22 ISSUE OF THAT NEWSPAPER.
"WE WILL FOREVER BE INDEBTED TO THE ROYAL NAVY" ONE OFFICER COMMENTED. " THEY TAUGHT US OUR PROFESSION.
BUT THE RN OUTLOOK IS NOT THE CANADIAN OUTLOOK. THE RELATIONSHIP OF OFFICERS TO MEN IN THE BRITISH NAVY HAS BEEN THAT OF MASTER AND SERF".
ANOTHER OFFICER PUT IT THIS WAY. A SHIP LIKE THIS CAN OPERATE ON GOODWILL. THE MEN IDOLISE OUR CAPTAIN. OURS IS A YOUNG NAVY, WITH FEW HEROES BUT HE IS ONE OF THEM.
THE RESULT IS THAT HE CAN MOVE EASILY AMONG THEM, CALL THEM BY NAME, BUT NEVER LOSE THE DIGNITY OF HIS POSITION.
THE MEN SERVE HIM WELL BECAUSE THEY ADMIRE HIM. THE ROYAL NAVY DOES NOT OPERATE ON GOODWILL. THE TRADITIONS OF CENTURIES - THE BARKED COMMAND AND THE STERN DISCIPLINE, XX THE (IMGTNIONF ?) OF ABOMINABLE LIVING CONDITIONS - CANNOT BE CHANGED OVERNIGHT."

2. YOU ARE TO REPORT FORTHWITH THE NAMES OF ANY OFFICERS SERVING UNDER YOUR COMMAND WHO MADE THESE STATEMENTS TO MR. KEATE.

//260310Z

"AC" PARAPHRASE NOT REQUIRED NO UNCLASSIFIED
REPLY OR REFERENCE IF DTG IS QUOTED.
HNR 2735 CODE TOR 0826Z EAC 26 JAN 57

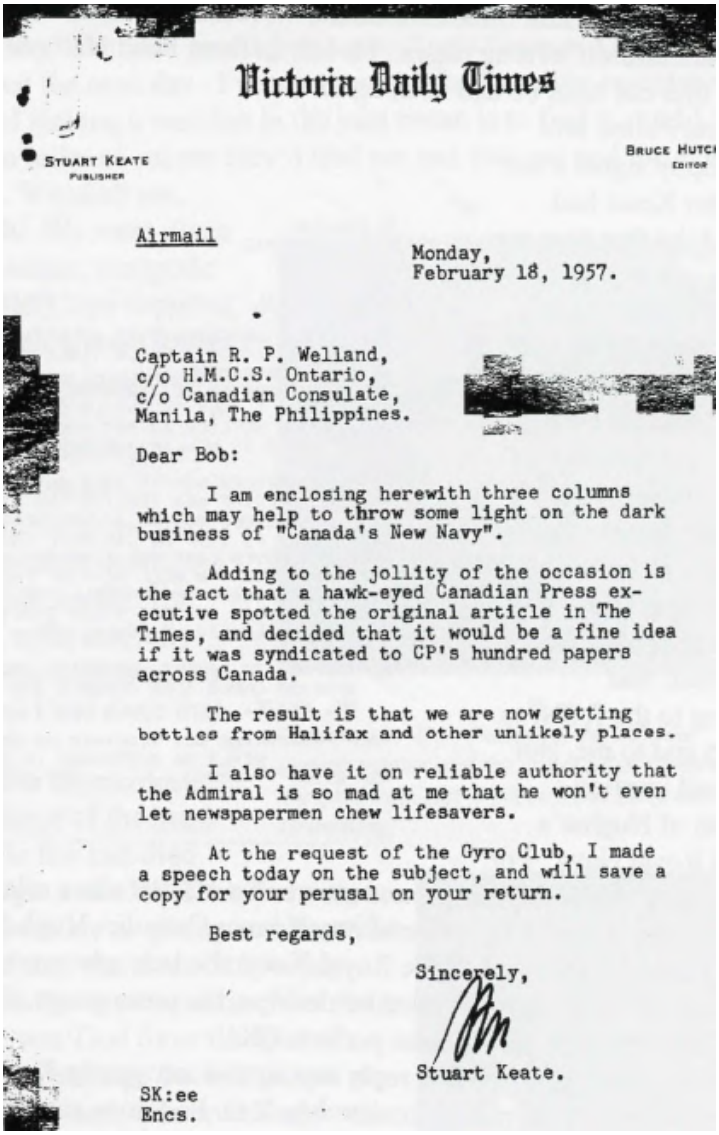
Stuart Keate's company on the trip was as much fun as I expected; he was well known for his original wit; he entertained me and the wardroom officers for the week. He became friendly with Mike and renamed him Simba for unknown reasons. Keate had circulated throughout the ship and busied himself writing pages. He left us from Pearl Harbour and flew back to Canada. I was soon to find out what he had been up to.

Admiral Pullen sent me a snappy signal a day or so after Keate had departed; by that time we were on our way to Manila. I didn't have a copy of what Keate had put into his newspaper, but it is obvious that Pullen 'was not amused' and was taking it out on me. Read the message he sent - this pink one.

On reading this it was obvious that what Keate had written was flattering to the RCN, to the ship and to me. But Keate had implied criticism of Hughie's blessed Royal Navy. For Keate to write that RN officers and men had a master/slave relationship was the worst heresy in Hughie's view; like being a liberal or a Roman Catholic. Hugh had blinkers on when it came to some of the past practices of the Royal Navy; the lads who were flogged till they died or the fifty prostitutes on board their wooden battleships, the press gangs, the rampant corruption in storing ships. But to Hughie the RN was perfect. OK!

I sent my Admiral a two-line reply saying that any gossip Keate heard while in the ship was not transmitted over naval radio circuits. My X.O. Padmore, remarked that my message was brief, evasive, and even truthful! Keate must have sent his many words of writing back to Canada from Honolulu by cable. When we arrived in Manila his stories and a personal letter were waiting for me.

Hughie Pullen was not devoid of humour and I knew he'd soon get over his pique. As a wartime destroyer captain he had mis-handled his ship in



Victoria Daily Times

STUART KEATE
PUBLISHER

BRUCE HUTCH
EDITOR

Airmail

Monday,
February 18, 1957.

Captain R. P. Welland,
c/o H.M.C.S. Ontario,
c/o Canadian Consulate,
Manila, The Philippines.

Dear Bob:

I am enclosing herewith three columns which may help to throw some light on the dark business of "Canada's New Navy".

Adding to the jollity of the occasion is the fact that a hawk-eyed Canadian Press executive spotted the original article in The Times, and decided that it would be a fine idea if it was syndicated to CP's hundred papers across Canada.

The result is that we are now getting bottles from Halifax and other unlikely places.

I also have it on reliable authority that the Admiral is so mad at me that he won't even let newspapermen chew lifesavers.

At the request of the Gyro Club, I made a speech today on the subject, and will save a copy for your perusal on your return.

Best regards,

Sincerely,

Stuart Keate.

SK:ee
Encs.

the Halifax dockyard; the flare of the foc's'cle had collided with a brick telephone booth on the edge of the wharf. Pullen sent a message to the dockyard superintendent, "Regret I have damaged telephone booth on jetty five." He then examined the booth through his 7x50 binoculars and sent another signal, "Re my last: for 'damaged' read 'demolished'." But he was a Royalist to the end; long after he had retired he volunteered his service to the Royal Navy at the time Margaret Thatcher invaded the Falkland Islands. He made the trip to England at his own expense only to be told by the Admiralty they didn't need him.

I felt a bit uncomfortable that Pullen would be so annoyed at having the press air the Navy's past problems, because he should not have fussed. My press sparing partner from the Korean days, captain Bill Strange, would have been delighted to have the Navy's underwear aired. I recalled an event that had delighted Bill: our aircraft carrier HMCS *Warrior* went aground in the St. Lawrence river; her steering gear had gone faulty and before she stopped her forty-foot-high bow was overhanging the Trans Canada highway. All traffic between Quebec City and Trois Rivieres was stopped for six hours. When Bill Strange heard the news, an hour or so after the ship had gone astray, he issued a press notice stating that the whole event was fabricated, it had not occurred, and why were the French radio stations being mean to the Navy. His deliberate action created days of publicity; denials denying denials etc.

"You must understand," he told I me, "that any press about the Navy is far better than none at all. Enjoy it." He predicted, accurately, that recruiting would pick up. He repeated this stunt again on the occasion of several sailors dying from drinking duplicating fluid in another ship. Again he claimed the publicity helped recruiting. So I didn't feel that sorry for Hughie and his urge to keep us all respectable and our name out of the paper! Keate told me later that he was mystified that Pullen didn't "Get it".

On the way to the Philippines we had to cross the equator. I needed to steer a course that would take us across-the-line at exactly 10:00 AM. That was what the Chief Bos'n's mate, Chief Petty Officer Blades, told me, "In order that I can organize the event so each man's certificate has the correct time and longitude inscribed on it." I promised the Chief Buffer I would stop the squadron exactly on the line at exactly 10.00 AM, "In order that King Neptune can come aboard via the starboard hawsepipe as tradition demands."

Over 500 Tadpoles, those who had not crossed-the-line previously, were placed into the tilting chair, shaved with an enormous wooden razor, and dumped backwards into a vat of salt water. Michael P. Welland was amongst them All the above was accompanied by our twelve-piece band and a tot of rum on being fished out of the tank.

The Philippine armed forces welcomed our

three- ship visit; they organized bus tours into the countryside; there were baseball games, swimming, and after-dark dancing at the many clubs. The sailors had a fine time; they were even persuaded to give gallons of blood for the local hospitals. The medical fraternity had arranged that several stunning actresses accompany the needles and nurses.

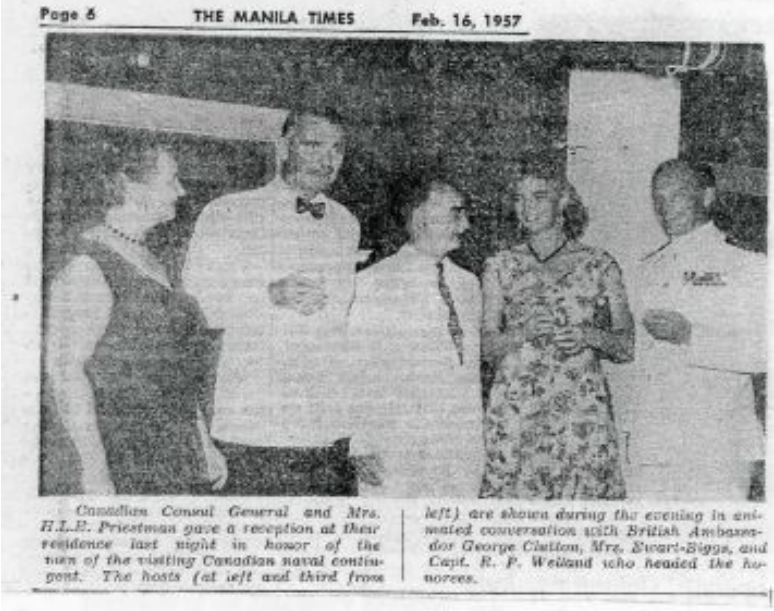
Their air force offered me a trip to a mountain resort, Bagio. That two-day visit was memorable owing to the local customs. Bare breasted women in the Far-East are so common they attract little attention; unless they are suckling a baby on one side and a little piglet on the other! Old men sat on curb-sides displaying two-footlong penises constructed of straw; the young Air Force lieutenant (Jorge) accompanying me was equally mystified at to what it was about. Jorge drew my attention to a sign over a shop, 'Get your GONORHEA cured here-200 pesos'. "Shouldn't that have two R's?", he said.

Nature's scenery was spectacular, no one needed to toil apparently, juicy fruit hung on every tree, the temperature was 80. The airport runway was cut into the side of a cliff; the Dakota's wing almost scraped on the rock wall and scared me stiff.

The Philippines spirits were high as they celebrated their new freedom; no longer were they an American colony. The crime rate was high too; we were told not to be on roads outside the city after dark. "Bandits block the roads then rob you", Jorge said, "They put their police uniforms back on at daylight!" Inside the city a good state of order prevailed, our men got into no trouble and enjoyed the experience; for most it was their first time outside Canada and the USA.

We had the ships open to visitors, thousands came. They behaved perfectly; no telephones went missing. We held a special children's party for orphans, four hundred were brought to the ship. The band played, the sailors let them ride on gun-barrels and eat ice cream. These orphans were a rosy-cheeked lot and full of fun. Being a Philippine orphan is not that bad.

A Philippine actress induces the sailors to contribute blood. Why not.


Page 6 THE MANILA TIMES Feb. 16, 1957

Canadian Consul General and Mrs. H.L.E. Priestman gave a reception at their residence last night in honor of the men of the visiting Canadian naval contingent. The hosts (at left and third from left) are shown during the evening in animated conversation with British Ambassador George Clutton, Mrs. Stuart-Biggs, and Capt. R. P. Welland who headed the honorees.

Canadian embassy party in Manila..

Neptunis Rex records each tadpole's 'Crossing the Line' certificate.

Contribute to the NAC's Naval Affairs Program

The Naval Association of Canada Naval Affairs program through research, national and local programs, provides a voice to educate Canadians and their leaders on the importance of Canada's Navy to our nation's well-being, economic prosperity, sovereignty, and defence.

Our Mission is to inform and educate Canadians about Canada in a maritime world and to explain the application of sea power in the national interest. We do this through our new suite of publications, which includes research papers, Briefing Notes, and Bibliographies – products that provide a solid base of understanding for Canadians of the importance of Canada's maritime interests.

Crucial to this program is getting the right information. The NAC's membership is one of the country's best reserves of knowledge and we need you to contribute to the Naval Affairs program. So, consider working with us to produce an informative briefing note on a subject of your choice, or use our NIOBE Paper series to offer your thoughts on maritime security.

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The “Pinch” that Wasn’t

Fraser McKee

In security and Commando terms, a “pinch” is when an enemy’s secret codes or devices such as new radars are seized clandestinely. Naval readers are familiar with the Royal Navy’s efforts to “pinch” German Enigma machine codes from boarded U-boats and weather reporting trawlers. There are those that say the ‘real’ reason for the disastrous Dieppe Raid was to pinch an Enigma machine there or at least its codes and rotors. But a pinch only really comes off if the enemy doesn’t know it’s been successful, thus warning them that the codes, even the machine, needs to be changed at once, negating the value of the pinch. This is a neat little story of a feared pinch of the newly invented German radar detector, Metox, in mid 1942.

By the spring of 1942 the RAF Coastal Command aircraft were being at last fitted with 1.4 meter ASV radar, thus surprising surfaced U-boats, particularly when crossing the Bay of Biscay from and to the captured French port bases there. Suspecting this is what was happening, the *Kriegsmarine* had its radio research section quickly develop a detector to warn those U-boats in time to dive out of danger. The detection units, about the size of a small mantel radio set, was manufactured by a French company, Metox Grandin, which also manufactured the elemental antennae, consisting of a wooden diamond-shaped cross some 2½ feet high with wire wound around its extremities. The problem was there hadn’t been time to develop or install a watertight housing in the U-boats. The ‘Biscay Cross’ as it was colloquially known, was brought to the conning tower on surfacing and its stem fitted in a bracket. However, the wire connected to the detection unit had to lead down through the *open* hatch. Thus, when diving in quick time on receiving warning of detection the cross was unshipped and thrown down the hatch, frequently breaking the ‘cross,’ necessitating replacement.

In September, 1942, five of the crew of U-604 were sent by train from their base in Brest to Paris to pick up a replacement unit. Being such a new and secret bit of equipment, they were not told anything of its nature, so tended to be pretty casual about the rather large and heavy crate they found at the company’s address on Boulevard Haussmann. With difficulties, the group struggled onto the Metro North Station, and dragged it into the entrance, where they commandeered a porter with a convenient trolley to transport their load to the train. They were distracted by a fruit stand, where the sailors became involved in stealing some rare bananas, but on turning to accompany the porter, found he had in those couple of minutes disappeared. Although to them it was a worrying problem that would take some explaining when they arrived back at base, in fact it could have been a quite disastrous ‘pinch’ of the detector, of which the Allies as yet knew little.

The group divided up and went in search of the porter with his valuable trolley cargo. After some very worrying time, they located him, on the platform from which their train to Brest would indeed depart. Much relieved, they reacquired their unknown cargo, returning uneventually to their boat.

As a continuation of the story in a way, the *Kriegsmarine* became concerned that by 1943 their surfaced boats were still being detected even at night and in bad weather. Suspecting that possibly the Metox gear was radiating a signal on its own when in use, it was thus becoming a homing device. While this was not really true, and even the RAF technicians knew this, they didn’t follow up on it as already their ASV radar was operating in shorter and undetected centimetric wave bands, the H2S sets. However, a captured RAF airman let slip, deliberately, that the Metox sets were radiating a detectible signal, at which Donitz immediately ordered much more restricted use of his boats’ Metox gear, to in fact little advantage.

A neat illustration of security, electronics in wartime, happenstance and a missed opportunity.

In part expanded from the story in Christian Prag’s 2009 book “No Ordinary War” (Seaforth Publishing, Barnsley), the story of U-604)

Donation Information and Challenge Coin Offer

The Canadian Naval Tribute Project, together with the Naval Association of Canada's Toronto Branch, will be producing a commemorative Challenge Coin (preliminary mock-up above) to help raise funds for the Canadian Naval Tribute Project. This unique coin will feature both the Canadian Naval Tribute Project's logo and the traditional NOAC logo (in celebration of the Naval Association of Canada Toronto Branch's 75th Anniversary).

Those wishing to donate to the construction of the Canadian Naval Tribute Project, may do so by mailing a cheque written to the "Canadian Naval Tribute Project" at the following address: Canadian Naval Tribute Project, 1286 Kane Road, Mississauga, ON, L5H2M3 or by e-transfer to the following email address: nactoprogram@gmail.com

All donations to the Canadian Naval Tribute Project of $75.00 or more will receive a challenge coin. Please include your mailing address with your mail-in donation or within the notes of your e-transfer donation, so we can mail you a coin.

A charitable tax receipt will be issued by the Naval Association of Canada (Toronto) for all donations to the Canadian Naval Tribute Project of $50.00 or more.

Project Backgrounder: The Canadian Naval Tribute Project

The Canadian Naval Tribute Project (CNTP) was co-founded by Naval Association of Canada Toronto Branch Board members: Mark B. Phillips and Sean E. Livingston. Together they have designed a naval monument to be located in the City of Toronto that will recognize a diverse, and largely uncelebrated, group of individuals for the historical contributions and impact they have made on the Royal Canadian Navy. Whether by acts of valour, exemplifying service before self, or breaking gender and racial boundaries, their tenacity and resolve exemplify the very spirit of the present-day Royal Canadian Navy.

This modern-day monument will encompass a large circular base, surrounded by twelve interpretive panels showcasing original portraits of each featured sailor. The scheduled date for unveiling the Canadian Naval Tribute Project's monument is April 30, 2022.

These panels will face a flagstaff, situated at the center of the monument, upon which a large Canadian Naval Ensign will fly. A ship's bell will also be fixed to the staff for ceremonies. A path will lead visitors to the monument, and two larger information panels, both in English and French, will be placed at its entrance to explain the monument and encourage

people to visit the project's website. The CNTP website will highlight the biographies of these outstanding individuals and the important contributions they have made to both our country and its naval history.

Many individuals have made laudable contributions to the Royal Canadian Navy's history; these twelve sailors are an inclusive and diverse example of service. Regardless of the threat of war, or the restrictions imposed by a less tolerant and inclusive society, they all responded with a resolute: 'Ready Aye Ready'.

Above is a sample of LCdr. John Stubbs' portrait. Each individual panel will feature a portrait of the honouree, their name, post-nominals, and a one-line summary of their contribution to the RCN.

Honourees:

(In Alphabetical Order)

1. * Chief Petty Officer Max Leopold Bernays CGM, LSGCM, CD, RCNR

"Alone and surrounded by fire, executed all helm orders in fight against U-boat"

2. Commander Roland Bourke VC, DSO, RCNVR

"Led his Motor Launch through enemy fire to rescue sailors

3. * Lieutenant-Commander Margaret Brooke MBE, NS

"Braving frigid waters, displayed courage in attempt to save the life of another nursing sister"

4. * Vice Admiral Henry George "Harry" DeWolf CBE, DSO, DSC, CD, RCN

"Hard-Over Harry: Legendary Ship Captain and Canada's Nelson"

5. * Lieutenant Robert Hampton Gray VC, DSC, RCNVR

"Displayed valour, fighting spirit, and the most inspiring leadership in attack on destroyer"

6. * Quartermaster William Nelson Edward Hall VC, RN

"First Nova Scotian to win Victoria Cross for gallant conduct at a 24-pounder gun"

7. Chief Petty Officer 1st Class George Edward "Ted" Jamieson CD, RCN

"Toronto-born member of the Six Nations Upper Cayuga Band Served in both the Second World War and Korean War"

8. Chief Petty Officer 1stClass Raymond Cecil Lawrence MMM, CD, RCN

"First Black Canadian enrolled in the Royal Canadian Navy (1953), appointed as Coxswain of a warship, and appointed to the Order of Military Merit."

9. Lieutenant-Commander William 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"

10. Commander Isabel MacNeill OC, OBE, WRCNS

"First woman to command a ship (Stone Frigate) in the British Commonwealth"

11. * First Lieutenant Frédérick Rolette, RN

"French Canadian Sailor, who when the captain of his ship was mortally wounded, assumed command with great skill and gallantry".

12. Lieutenant-Commander John Stubbs, DSO, DSC, RCN

"Naval prodigy and master tactician who exemplified devotion to duty"

**RCN Arctic Offshore Patrol Ships recently named after these six sailors.*

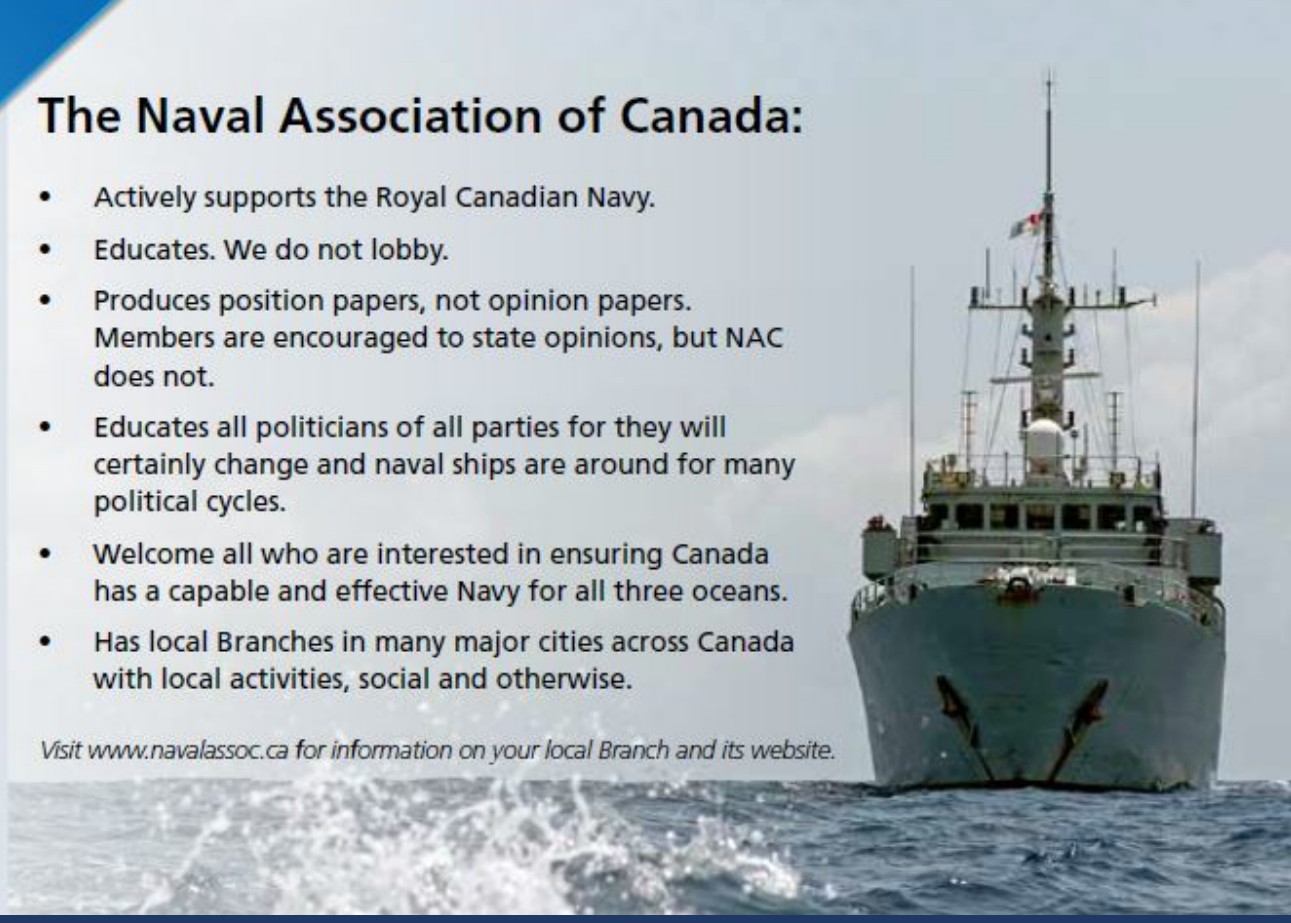
A CH-148 Cyclone helicopter prepares to land on the flight deck of HMCS Harry DeWolf (Photo: Justin Spinello, CAF)

Join us!

The Naval Association of Canada:

- Actively supports the Royal Canadian Navy.
- Educates. We do not lobby.
- Produces position papers, not opinion papers. Members are encouraged to state opinions, but NAC does not.
- Educates all politicians of all parties for they will certainly change and naval ships are around for many political cycles.
- Welcome all who are interested in ensuring Canada has a capable and effective Navy for all three oceans.
- Has local Branches in many major cities across Canada with local activities, social and otherwise.

Visit www.navalassoc.ca for information on your local Branch and its website.



All memberships include a subscription to our quarterly magazine, Starshell (yep, you'll get this snazzy magazine delivered four times a year electronically!).

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New Stock and Lower Price Now Available

Blazer Badge (NAC or RCN)	$25 each
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Medallion Lapel Pins – Gold, Silver, Bronze	$5 each
Medallion Neck Decorations	$95 each
Necktie – NOAC/NAC/RCN	$35 each

Prices include all taxes and shipping.
Email Executive Director, David Soule, executivedirector-nac@outlook.com to confirm availability. Payment: Cheque payable to "NAC National" and mail your order to Executive Director-NAC, 1138 Sauterne Pk., Orleans, ON K1C 2N8 (e-transfer option coming soon)

A Game Against the Wolves

Fraser McKee

Most naval readers of the Battle of the Atlantic will at least be aware of Captain Gilbert Roberts, R.N.'s WATU (Western Approaches Tactical Unit) school and exercise plot at Liverpool in Derby House, established in January, 1942. There escort group C.O.'s and tactical teams of navigators and ASCO's (anti-sub-marine control officers) could learn, even develop improved possible tactics to attack in turn the marauding U-Boats. Practice their trade as convoy escorts in the battle.

But in 1941 1,300 merchant ships had been sunk, a loss rate that could not be sustained, and threatened to increase. Hunting the attacking U-Boats was very hit-or-miss; there was no proven tactical doctrine, certainly no development and testing of potential logical action in the face of the Kriegsmarine's developing wolf packs. Ships' ASDIC and depth charges were not anywhere nearly as good as had been prophesied in minimal trials pre-war. How could those responsible improve the training of the escort ship crews, particularly the C.O.s, to help them find their attackers?

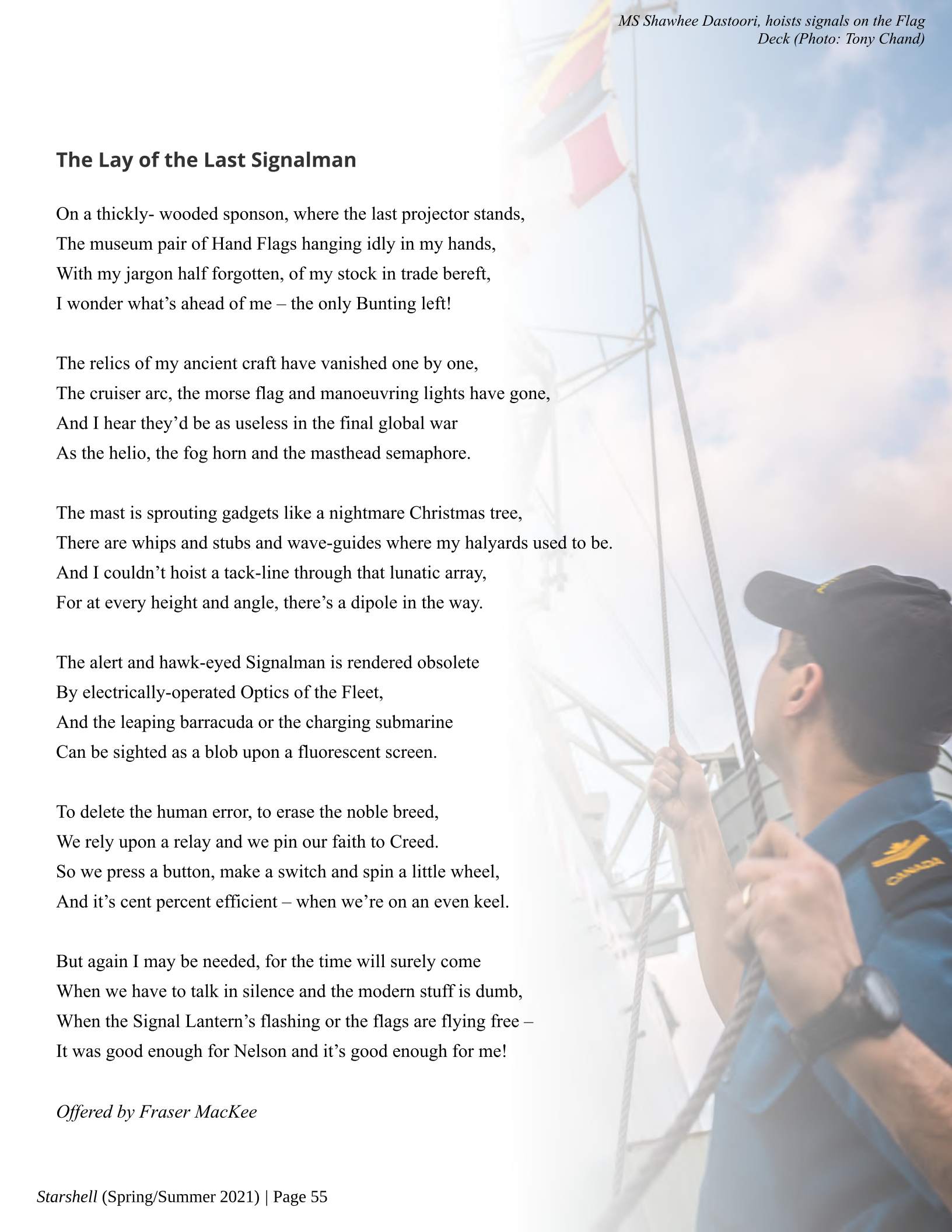
Already the top U-Boat C.O.'s knew that best results were obtained at close range at night, often, as practiced by LCdr Otto Kreschmer, from within the lines of merchantmen inside the convoy itself. They had at least some doctrine training suggestions.

By September, 1941, a game had been developed at the escort base in Londonderry by LCdr I.M. Carrs, a qualified ASCO. The game was to be played on board the actual escort ships by those who would be involved, using small models on a paper mat with grid lines to show speeds and manoeuvering, written orders as to what the C.O. should do representing what would or could happen if they were attacked. The game would come in a small box with a clear plastic sheet to overlay the developed attack to assess the likely results of the teams' decisions during play afterwards. All in the real ships, with the actual participants playing their parts

Unlike any previous training exercises it was like the familiar board games, in a box that could be sent out to all escort ships. Carrs requested the assistance of an experienced board game designer, Lt. M.E. Impey and provision was made for gramophone records of appropriate sounds to go with the play. Within six days of the pair's presentation of a sample kit to the Admiralty, production of 150 versions was approved, such was the urgency, at a cost of £750, for issuing the boxes – 52 sets for destroyers, 38 for corvettes and 60 for trawlers – 'A Portable Anti-Submarine Trainer' stamped on the lid.

While these games did improve the crews' performances, it didn't allow for much study of escort group co-operation or expose developing U-Boat tactics in their wolf packs. The increasing losses at sea led within months to Roberts WATU training facility, which at least allowed for testing of escort group reactions, what seemed to work and what did not, and more varied and, via very secret Enigma U-boat signal decryption input, better estimates of what the submarines would most likely be doing. A/S crew training was considered an on-board responsibility.

The 'Portable' games only lasted a few months. Not a single example has been seen in any archive or even on E-Bay, possibly because, for its day, it was such a secret device. As a LT(tas) myself originally, I would dearly love a copy!



MS Shawhee Dastoori, hoists signals on the Flag Deck (Photo: Tony Chand)

The Lay of the Last Signalman

On a thickly- wooded sponson, where the last projector stands,
The museum pair of Hand Flags hanging idly in my hands,
With my jargon half forgotten, of my stock in trade bereft,
I wonder what's ahead of me – the only Bunting left!

The relics of my ancient craft have vanished one by one,
The cruiser arc, the morse flag and manoeuvring lights have gone,
And I hear they'd be as useless in the final global war
As the helio, the fog horn and the masthead semaphore.

The mast is sprouting gadgets like a nightmare Christmas tree,
There are whips and stubs and wave-guides where my halyards used to be.
And I couldn't hoist a tack-line through that lunatic array,
For at every height and angle, there's a dipole in the way.

The alert and hawk-eyed Signalman is rendered obsolete
By electrically-operated Optics of the Fleet,
And the leaping barracuda or the charging submarine
Can be sighted as a blob upon a fluorescent screen.

To delete the human error, to erase the noble breed,
We rely upon a relay and we pin our faith to Creed.
So we press a button, make a switch and spin a little wheel,
And it's cent percent efficient – when we're on an even keel.

But again I may be needed, for the time will surely come
When we have to talk in silence and the modern stuff is dumb,
When the Signal Lantern's flashing or the flags are flying free –
It was good enough for Nelson and it's good enough for me!

Offered by Fraser MacKee

Canada Needs a Submarine Industry

Roger Cyr, OMM, CD

Canada now has a fully rebuilt and sustainable submarine capability. They are stealthy, well-armed and can patrol over vast distances with a flexibility that allows them to perform a wide range of unique naval missions. The Navy states that they still have a good life in them with some modest investments. Given the origin of Canada's four submarines, this is truly remarkable and shows that industry in Canada has the potential and capability to get involved in designing and building submarines.

Submarines are an essential component of any naval fleet as a force projection instrument. A modern submarine is a multi-role platform, able to conduct both overt and covert operations. In peacetime it can act as a deterrent as well as for surveillance operations and information gathering. In wartime a submarine can carry out several missions, including denial of sea areas to an enemy. Today's submarines can also be fitted with not only standard torpedoes, but with missile systems similar to surface combatants – with the added benefit of stealth as the subs can submerge.

There appears to be a global impetus for nations to build up their naval forces and especially submarines. China is forecast to become the world's largest navy, although it is still lacking the global power projection capabilities of its US counterpart. But it is estimated that the US Navy's submarine fleet of 68 SSNs will be surpassed by China before the year 2030.

Russia, meanwhile, is expected to drop one sub, leaving it with 62 operational submarines in the coming decade. North Korea, which is estimated to have up to 71 submarines, most of them smaller, older vessels, is to slim down to a fleet of 60 subs by 2030. The next decade could see a major shift in the world of naval power, and more specifically submarine assets.

The NATO alliance of 30 member nations stands to protect its member nations and promote world peace. Canada, as a member must have relevant naval forces to support the alliance and share the associated burden. Modern and effective conventional submarines need to be a part of a naval force of member nations to ensure global safety and stability.

Spain's new submarine procurement should be an example for Canada. The Spanish Navy's new submarine class of four subs is one of the largest non-nuclear submarines in the world and promises to be a major step up for the Spanish Navy. The original design was the Scorpène-class submarine jointly developed by the French Direction des Constructions Navales and the Spanish company Navantia, and now by Naval Group. Its design will be characterized by its use of a bioethanol fuel cell AIP (air independent power) system. Known as BEST (Bio-Ethanol Stealth Technology), this offers some advantages over other AIP systems. After use, the ethanol is reformed which overcomes the need to separately store hydrogen aboard. Other AIP submarines need hydrogen tanks. The submarine will be armed with three primary weapons, the DM2A4 heavyweight torpedo, UGM-84 Sub-Harpoon anti-ship missile, and SAES seabed

Scorpène-class submarine (Photo: Wikicommons)

mines. It was also planned to equip them with the UGM-109 Tomahawk land attack cruise missile. This would place the Spanish Navy in an elite group of submarine operators with a strategic strike capability. The submarine is to retain the capability to carry Tomahawks if the missiles are acquired in the future. This capability is unique among non-nuclear NATO submarines. This new class will bring the Spanish Navy's submarine fleet thoroughly up to date. Given the low crewing requirements, just 32, this may make it attractive on the international market.

There is also the Australia's new submarine project. The Attack-class submarine is expected to enter service in the early 2030s with construction extending into the late 2050. The project is for twelve submarines and will be the largest, and most complex, defence acquisition project in Australian history. The Attack-class design is based on a conventional or non-nuclear version of the Barracuda SSN (Suffren-class) and has a sloped-front sail, bow diving planes, and a pump-jet propulsor with an X-rudder. The primary contractor, Naval Group of France, is fully committed to supporting the development of Australia's sovereign submarine capability. It will also create a new submarine building industry in Australia. Strong local supply chains will ensure that Australia has new self-reliance in this critical defence capability. Lockheed Martin was announced as the combat system integrator. The submarines will be fitted with the AN/BYG-1 combat system, with the armament consisting of eight 533 mm torpedo tubes with an inventory of 28 Mark 48 MOD 7 heavyweight torpedoes, and Harpoon anti-ship missiles or Mk III Stonefish mines. Both Spain and Australia hope to eventually market their new construction submarines to allies and amortize their investment.

Attack-class submarine (Photo: Royal Australian Navy)

Canada has a history of building submarines and perhaps this highly specialized industry should be rekindled and hopefully create a niche market. In 1915, Canadian Vickers in Montreal received a contract to build small "H class" submarines for the Royal Navy. The British had ordered 20 submarines from the United States in early 1915, but America was still neutral. So, the American firms contracted out 10 of the "H class" submarines to Canadian Vickers, which delivered them quickly, since many of the components had already been manufactured south of the border. Six of the submarines left Halifax for Britain on 22 July 1915 and the other four sailed a few weeks later. Vickers also built eight more submarines for the Italian Navy and three for the Russian Navy.

Canadian naval assets included effective submarines for many decades. The Navy's first two submarines were bought by British Columbia from the Seattle Dry Dock in 1914 at the start of World War I, and they were commissioned as *CC1* and *CC2*. At the end of the war, two H-class submarines built in the US were offered to Canada. They were designated *CH14* and *CH15*, and these were laid up in 1922. The next experience with submarines took place in 1961, when the government leased *Grilse* from the US for service on the West Coast. This submarine was eventually replaced by the US with the *Rainbow*. Next came the acquisition of the three Oberon-class submarines. The first one being the *Ojibwa* in 1965, which was then followed by *Onondaga* in 1967 and *Okanagan* in 1968. These three submarines were considered operationally capable and reliable, and spent a considerable amount of time at sea, probably more so than the surface fleet. Two of the Oberons are now museums, one in Quebec and the other in Ontario. In 1998, Then, Canada acquired the four Victoria-class used submarines from England.

HMCS Chicoutimi escorts Peoples Liberation Army (Navy) ships visiting Victoria on behalf of the Chinese military in 2016 (Photo: Carbe Orellana, MARPAC)

In today's fractured geopolitical system, many nations are building and/or upgrading their submarines. The Japan Maritime Self-Defense Force has launched new models of submarines every few years. South Korea has upgraded the already capable Type 209 design from Germany and sold copies to Indonesia. Russia has improved the old Soviet Kilo model into what strategic analysts are calling equivalent to the 1980s-era Los Angeles class, and so on.

Submarines are once again being recognized as a key factor in maintaining a powerful naval force. Historically it has proved impossible for a country to keep global military status, without dominance at sea. Since World War I, it has also been impossible for naval forces to hold superiority at sea, without the use of submarines. In fact, today the use of submarines is not only pivotal to naval campaigns, but with their growing missile capabilities, subs are also an important part of any major land offensive. Even before a conflict arises, a submarine's ability to deploy military strength to an area without being detected is strategically invaluable. Conversely then, the ability to neutralize an opponent's underwater force must be a primary objective. Each new generation of submarines has become quieter and harder to detect. In the end, if a submarine cannot be seen or heard, then it cannot be found, attacked, and destroyed.

It is time for the Canadian navy to consider a new approach to the acquisition of submarine assets. Since Canada has built submarines before, it should then follow the method employed by Spain and Australia to acquire submarines. It should partner with a state-of-the-art submarine design and modify the design to meet Canadian requirements. The build would take place in Canadian shipyards as was done with the Arctic Offshore Patrol Ships, the Joint Support Ships, and will be done with the Canadian Surface Combatants. Perhaps, as anticipated for the Spanish and Australian submarines, there could even be a global market for a Canadian design-variant submarine that is built in Canada.

At the end of his naval warfare book, *The Price of Admiralty*, military historian John Keegan postulates that eventually, almost all roles of surface warships will be taken over by submarines, as they will be the only naval units capable of evading the increasing intelligence capabilities (space satellites, aircraft) that a fight between evenly matched modern states could bring to bear on them.

From the Branches

NAE President's Update Report, June 4 2021

W. A. (Bill) Cannon

President, Naval Association of Edmonton

Again, we have very little business to report on due mostly to the Covid times we are coping with. I did take the opportunity to meet with Commander Chris Persson (Commanding Officer of HMCS *Nonsuch*) for about a half hour earlier this week, and I did get an update on some items of interest.

Nonsuch is going through a renovation project as we speak, and I find it very exciting. Three years ago, there was significant damage to the offices due to an exceptional weather event, heavy rains and eighty-year-old construction. In my humble opinion, it was a catastrophe but NOH persevered.

As some of us know, the facility was originally built by the USAF during WWII as a recreation center for troops that would be staged in Edmonton for deployment to Europe. The facility included a swimming pool, bowling lanes, gymnasium, offices, and other recreational amenities. After the war, it was turned over to DND and essentially was put on the back burner for decades. In the mid-70s it was decided to recommission HMCS *Nonsuch* as she had been decommissioned in the early 60s. The old NOH site in the flats was not

NAC Endowment Fund

Capt(N)(Retired) Harry Harsch (left) was the virtual recipient of a NAC Endowment Fund grant of $5,000 to the Royal Canadian Sea Cadet Education Fund. Ottawa Branch President Tim Addison made the virtual presentation at the March 2021 Naval Affairs Luncheon.

going to be able to fulfill the necessary functions of a stone boat, so the old rec center was put into service. A detail of several volunteers and reservists completed some extensive renovations including removing the bowling lanes, reusing the hardwood for a dance floor, installing a junior ranks mess and a galley. Later, offices, a board room, chief's and PO's mess and classrooms were finished. Subsequently, the swimming pool was converted into a saltwater facility with black paint added to better replicate blue water.

The first picture shows the new HVAC unit to be installed in the near future, and it includes air conditioning. That is a very big deal according to me. The second picture is of course the old, or new, offices. There is not much left as you can see, but the project is clearly starting from scratch. This will include a new junior ranks mess, and the Chief's and PO's mess will be re built on the North end. The old infrastructure was untenable and I could not agree more with the master plan here. I expect "Ship shape and Bristol fashion" results. Renovations are to be completed in October of this year.

The second bit of information we covered is that Commander Persson plans on retiring soon, and his change of command parade will be in a couple of months. The new commanding officer will be Leslie Yewer-Stacey, a long-time friend of the NAE. I will keep everyone updated as details become apparent.

Letters to the Editor

Re: Navy Takes Delivery of First Warship in Arctic Armada

Roger Cyr

Now a second chief of the military is being investigated for alleged misconduct. There is obviously a serious problem with Canada's military. What ever happened to our traditionally proud and efficient forces, especially its leaders. The forces are seriously lacking a vital element of any military, and that is LEADERSHIP. All senior officers should go back to basics and re-learn what military ethos is all about.It comprises values, beliefs and expectations that reflect core Canadian values, the imperatives of military professionalism, and the requirements of operations.

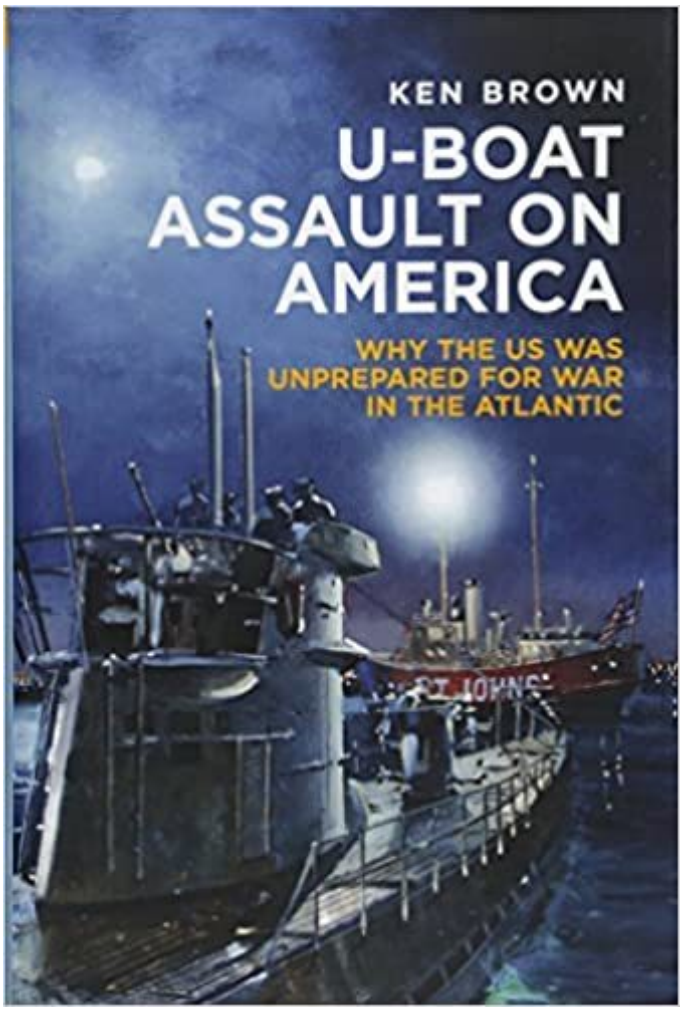
Of late there have been numerous situations where there seems to be a total lack of leadership shown in our forces. Senior officers today want to be seen as buddies to their troops, and that is not leadership. A leader is someone that rallies people toward a common vision. Leaders must be empathetic, impartial, and respectful. Above all they must be ethical and walk the walk; that is, their behavior and day-to-day actions must match the aspirations they have for their subordinates. Leadership is leading by example.

Book Reviews

U-Boat Assault On America: Why the US was unprepared for war in the Atlantic.

By: Ken Brown
(Seaforth Publishing/Pen & Sword, Barnsley,)

Reviewed by Fraser McKee



The Battle of the Atlantic, which began 82 years ago even for the RCN, has been adequately covered by many hundred books, in general and in detail.Even the German U-boat concentrated attack on the U.S. Atlantic coast between January and June, 1942 in their Operation *Paukenschlag* – Drumbeat, - has produced several extensive volumes, by American and German writers, U-boat C.O.'s and others.The best is probably Michael Gannon's 'Operation Drumbeat' (Harper Row , 1990). So why yet another on the subject?

Although I have read many of them, have a good selection in my library, I found this 200-text page slim volume of much interest.The actual attacks, by and on U-boats, occupy comparatively few pages toward the end.For those dramatic or frustrating events the earlier books are more than adequate. Brown, in this case, looks extensively at the questions of *why* this six month battle was important, nay vital in its day. The decisions made at the Verseilles treaty in 1919 and subsequent Peace and disarmament treaties that had a lasting effect on the format of this battle 23 years later;why, fortunately for all the Allies, it wasn't in fact a disaster as it could have been if ADML Donitz had been able to assign more boats to its prosecution.And the author gives interesting examples of the wonderful ability of the American manufacturing industry, particularly in ship-building, to spring into almost instant action, pass needed legislation, resolve disputes, when they finally appreciate the danger they themselves are in.

His assessment of the potential battle-planning and strategic games in the late 1920s and even into the 1930s in both the USN and the RN for a major Jutland-like sea struggle influenced their unpreparedness for the German early concentration on anti-trade submarine warfare is carefully

researched and referenced.As is the by chance depression relief 1930's 'New Deal' program of F.D. Roosevelt, and his recognition that assistance to the Allies and the U.K. in particular, with a hostile Senate and House makes for interesting reading.The mass of shipping along their Atlantic coast was by then affecting the war's progress with the loss of at least 100 ships, too many of them tankers.Brown shows how the RN, by 1940 had appreciated that convoy and trade protection was vital, that 'sanitised lanes or routes' didn't work, that many "small and dirty" corvettes for that trade protection had been quickly put in hand, while the Americans were still concentrating on fleet protection and trooping convoys (to Iceland.)

His review of the paucity of what VADML Adolphus Andrews, in charge of the Atlantic coast shipping protection, had to work with makes for sorry comparisons.The major problem they faced was ADML Ernie King, the USN's CNO, both unable to see the problem, and being an Anglophobe, unwilling to take *any* advice or experience from RN sources on 'how to do it,' despite two and a half years of exactly the same problem around the U.K. (One Staff General commented that "One thing that might help us win the war is to get someone to shoot King!" The use of airships and Naval PBY patrols and even Civil Air Patrols in unarmed private aircraft – that flew 86,700 patrols, reporting 1,730 U-boat sightings -plus an offer(not accepted) of patrols by civilian motor launches – the sanitized lanes' approach again – tended to dominate. The only thing that in part saved both the U.S. and the Allies was again one person. Adolph Hitler became fixated on the potential for a British invasion of Norway, He ordered his U-boat Commander Karl Doenitz to retain eight boats of those planned for North American for *Paukenschlag*, when the latter had planned on sending up to 15 to that Operation. He initially sent only five boats, although by 1 May 30 U-boats had been involved in 184 patrols, plus two milch cow supply boats.Of these only 1 was sunk in coastal waters, despite massive claims in the press.

As things became desperate, even – horrors – fuel rationing in New York and enforced black-outs along the coast in face of local civil opposition, who felt the war was too far away to adversely affect visitors, the almost instant turn-around in ship-building, convoy, allocation of resources by late May and into June 1942 is typically American and makes for fascinating reading. As does Brown's carefully referenced assessments of both VADML Andrews and President Roosevelt, as well as the rivalries between the Navy and the Army Air Patrol forces, the Regulars and the new Reserves.

This is a different assessment of why and how come there was this almost unopposed direct loss of over 360 ships in the operational area – too many of them tankers – came to pass, for a cost of eight submarines.Well worth its shelf space.

S.S. Nerissa, the Final Crossing

By: William Dziadyk

2019

Reviewed by Gord Forbes

Bill Dziadyk is a member of NAC Ottawa.This is the second edition of this book, the first having been published in 2019. In between the two editions, Bill has done much more research and added a significant number of new pages to produce this edition.

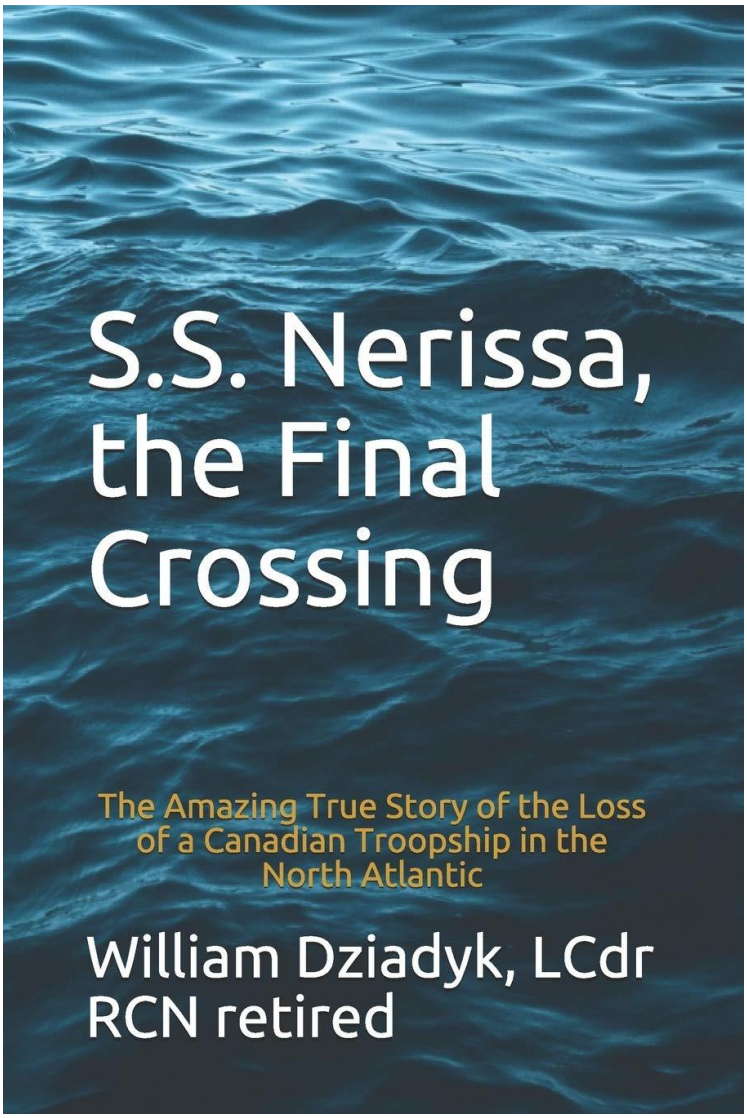
The S.S. Nerissa was a 5500-ton combined passenger/cargo vessel built in 1926 in Scotland.It spent a great deal of its prewar sailing on runs between Halifax, New York, and Boston, plus service to the Caribbean.When war arrived in 1939, it continued on its usual business until it was taken up by the Admiralty in April 1940.With its maximum speed of 17 knots and a cruising speed of 14 knots, it was considered fast enough to be able to proceed independently, although it sometimes sailed in convoy. Nerissa was progressively fitted with defensive armament including guns, depth charges, aerial cable rockets and a barrage balloon. It served the North American ports of New York, Boston, Halifax, and Saint John's. Its eastern terminus was almost always Liverpool. Its cargo usually consisted of war material and its passengers were mostly military people.The ship made twelve crossings successfully before the events of this story. On that

fateful thirteenth crossing, while sailing independently, Nerissa was torpedoed by U-552 just north-west of Ireland.

The most interesting aspect of this book is the depth of research that went into its writing.The amount of information that is presented is indeed impressive. The author has obviously spent many hours on this research and the results are very evident.He has tapped into many obvious and obscure sources for all this information. He is to be congratulated on this amount of work.

The problem with the book is the style that has been used. This book looks and reads more like an official report than a historical narrative. The book is replete with tables to convey information. In addition, opportunities for conveying information in a narrative form are presented in other ways. For example, the story of the fate of a stowed away Army Sergeant was only described in the official report of an Army Board of Inquiry.A more narrative style would have made thebook easier to read and enjoy.

This book certainly does address a very sad, unique, and little-known story of Canada's history during the Second World War. William Dziadyk has to be congratulated for bringing it to our attention.



HMCS Toronto fires a blank round from the ceremonial gun, during a sunset ceremony. (Photo: MARLANT twitter)

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

LCdr John William ADDERSON, CD, RCN(Ret'd)**

NSNAC, 91 in Dartmouth, NS 28/04/21. Jn'd RCN as OSER at *Nonsuch* in '48 thence *Naden* for new entry trg. Srv'd *Crusader* (Korea) in 1951-52, *Ontario, Stettler, Antigonish* and *New Waterford*. CFR'd from P1ER as CMD O in 1966 and srv'd *Provider,* CDLS(L) (RNEC Manadon), *Kootenay, Qu'Appelle, Protecteur* and *Preserver*. Also srv'd in various shore establishments. Ret'd in '81. Civ career with Supply and Services Canada. (SR, TA)

Hon Capt(N)(Ret'd) Claude Panet BEAUBIEN, CD

Montreal Br., 77 in Montreal 01/02/21. Jn'd CMR as Cdt 01/09/58, thence RMC 09/61. Prom S/Lt 01/05/63 thence *Yukon* 01/64 and CFHQ 12/64. Post navy, obtained degree in architecture and srv'd in Black Watch. Bronze medallion 1996. (e-Veritas)

Bruno CHAMPEVAL

Montreal Br., 57 in Verdun, QC 28/12/20. Career with Johnson Controls, and strong supporter of Sea Cadets and the Navy League, Quebec Division. Bronze Medallion 2016.

Ian A. CHRISTIE.

Calgary Br., 92 in Calgary 24/02/21. Srv'd WWII in *Prince David* (Skipper landing craft on D-Day, and in Southern France and Greece). Member 78th Fraser Highlanders and volunteer guide at Calgary Naval Museum. (EB)

LCdr Desmond Francis NUGENT, CD*, RCN(Ret'd)

NSNAC, 86 in Halifax 12/03/21. Jn'd RCN 08/55 as A/Lt (SSA) thence *Nootka* 11/55 and *Naden* 05/59. Tsf'd to RCN as Lt (sen. 05/59) fll'd by *St Laurent* 09/59, *Beacon Hill* 05/60, *Chippawa* 09/62 and Jonquiere (XO) 09/65. Prom lCdr and srv'd NDHQ, Vietnam in '73 and SACLANT. Ret'd in '81. Bronze Medallion 2012. (SR, *Chronicle Herald*)

RAdm Henry Timothy PORTER, CMM, CD, RCN(Ret'd)**

NAC-O, 83 in Cornwall, ON 05/04/21. Jn'd RCN as Cdt at *Venture* 09/09/56. Prom Mid 01/09/58 fll'd by *Stadacona*. Prom A/S/Lt 05/59 thence *Cap de la Madeleine* in '59. Prom S/Lt 05/60 fll'd by *Algonquin* and *Sioux* in '61.Prom Lt 07/62 thence FOAC Staff in '63, *Ste Therese* in '65, *Stadacona* (#4 Long Ops Cse.) in '65, CFFS Halifax in '66, *Bonaventure* in '67 and CFFS Halifax (staff Ops Div.) in '68. Prom LCdr 01/69 fll'd by Staff 3rd and 5th Destroyer Sqns. in '69, CFSC (Course 6) in '71, CDLS(W) in '72, *Fraser* (XO) in '74, CFFS Halifax in '75,*Preserver* (Deck O.) in '75

and *Saskatchewan* (XO) in ’76.Prom Cdr 01/77 thence *Restigouche* (i/c) in ’77, *Saskatchewan*(i/c) in ’78 and NDHQ (Career Mgr. for Cdrs) in ’80. Prom Capt 07/81 fll’d by NDHQ (DPCO) in ’81, Commander 4th Canadian Destroyer Sqn. in 83 and French Language Trg. In ’85. Prom Cmdre 08/86 thence MARCONHQ (COS P) in ’87. Prom RAdm 01/88 fll’d by NDHQ (CPS in ’90, CP Careers and Senior Appts in ’90 and CP Careers and Developments in ’91). Ret’d in ’93. Later, President Navy League of Canada 2004-06 and Chair RCSC Education Foundation 2008-13. Silver Medallion 2005.(HS)

Lt(NR)(Ret’d) Hugh SPROULE, CD

NAC-VI, in Nanaimo, BC 18/01/21. Jn’d RCN as OS in ’51 and srv’d *Huron* (Korea), *Cornwallis, Shearwater* and *Stadacona*. Fulltime NR as Lt in the 1980’s serving in MARCOM HQ.Bronze medallion 2013. (RNDM).

Lt(P) Frederick Andrew Webster WHITE, CD, RCN(Ret’d)

NAC-O, 88 in Ottawa 01/06/21. Jn’d RCN as Cdt at *Royal Roads*12/09/52. Pro Mid 01/09/54 fll’d by *Magnificent* in ’54 and *Niobe* (RN for Trg.) 12/55. Prom A/S/Lt 01/01/56 and S/Lt same date, thence *Niagara* (USN Flt. Trg.) 08/57. Qual “P”. Prom Lt(P) 16/05/58 fll’d by *Shearwater* (VF-870 and VU-32. Ret’d in late 1960’s. Civilian career with Air Canada. Bronze medallion 2004. (PB, Canada’s Naval Aviators)

Capt[Col(PLT)] Frank Cecil WILLIS, CD, RCN(Ret’d)**

NSNAC, 88 in Halifax 07/02/21. Jn’d RCN as Mid 10/06/52 fll’d by *Cornwallis* in ’52, *Quebec* in ’53, RCAF Centralia in ’53 and RCAF Gimli in ’54 (awarded wings). Prom A/S/Lt(P) 07/54 and S/Lt(P) same date, thence *Shearwater* in ’54, *Niobe* (RNAS Lossiemouth, and HMS *Bulwark*) in ’54 and ’55 and *Niagara* (USN Banshee qual.) in ’55. Prom Lt(P) 12/55 fll’d by *Shearwater* (VF-870 and VT-40) in ’55, *Outremont*in ’62 and *Shearwater* (Hu-21 and HS-50) in ’64. Prom LCdr 05/65 thence CFHQ in ’66, CFSC (Course 2) in ’67 and CFHQ in ’68. Prom LCol(PLI) 07/71 thence CFB Shearwater (CO HS-50) in ’72 and MARCOM HQ in ’74. Prom Col(PLT) 01/78 fll’d by Deputy Cdr MAG in ’78, NDHQ (German language trg.) in ’81, CF Attache Bonn in ’82 and Staff NATO Defense College in ’85. Ret’d 01/04/89. Post retirement, term as President Shearwater Aviation Museum. (SR,*Chronicle Herald*, Canada’s Naval Aviators)

S/Lt Hill WILSON, RCN(R)(Ret’d)

NAC-VI, 92 in Victoria 01/05/20. Jn’d *Discovery* 22/12/50 as RCN(R) S/Lt whilst at first Mate Navigation School and ret’d later. Civ career in Merchant Marine starting as Officer Cdt in ’45. Qual Master (Foreign Going) and Pilot. In retirement, author, president Maritime Museum of British Columbia and Executive President Canadian Merchant Navy Veterans Association. (RNDM)

Others

Capt[Col(AERE)] Francis ANDERSON, CD*, RCN(Ret’d)

90 in Ottawa 20/05/21. Born Franciszek Roman Tadeusz STFCZYK. Jn’d UNTD at *York* as Cdt(L) 02/01/52. Tsf’d to Cdt(L) RCN through ROTP 18/09/52, prom A/S/Lt(L) 01/06/56, S/Lt(L) 09/57, Lt(L) 21/07/57, LCdr 21/01/64, Cdr 07/67 and Col(AERE) 07/73. Srv’d *Stadacona* (Long “L” Cse.) *Niobe* (*HMS Ariel* air electrical trg.), *Shearwater, Bytown, York* (UofT PG trg.), VF-870, VX-10, CFHQ, CFB Comox, NDHQ and Quebec City for bilingual training. Ret’d 01/12/81. (*Citizen*, WC)

CPO1 Frederick Keith ASHTON, MMM, CD, RCN(Ret’d)**

82 in Dartmouth, NS 13/05/21. Jn’d RCN in ’59

and srv'd as Medic and Physician Assistant. Developer of the Ashton Stretcher. Ret'd in '94.(HW).

Capt Peter James E. BALDWIN, RNZN(Ret'd)

78 in Rotorua, NZ 13/05/21. Jn'd RCN as Cdt at *Venture* 09/61, prom A/S/Lt 09/63, S/Lt same day and Lt 09/67. Srv'd initially at sea then Flt. Trg., fll'd by *Shearwater*, HU-21,*Bonaventure, Assiniboine* and *Fraser*. Tsf'd to RNZN 11/72 as Lt (sen. 11/72), prom LCdr '78, Cdr '81 and Capt '90. Srv'd *HMNZ Ships Waikato* and *Canterbury*, Singapore (RNZN naval staff), *HMNZS Otago*(XO), *HMNZS Waikato*(i/c) and NZ Defence HQ. Ret'd 12/93. (PB, Canada's Naval Aviators)

CPO2 Victor William BARNES, CD*, RCN(Ret'd)

86 in Annapolis Royal, NS 31/01/21. Jn'd as OS in '53. Srv'd 16 ships and Sea Kings as sonar operator. Ret'd in '83. (SR,*Chronicle Herald*)

LCdr(NR)(Ret'd) John Robinson BENSON, CD

85 in Winnipeg 13/03/21. Jn'd RCN as Cdt at CMR 12/09/52, prom Mid 01/09/56, A/S/Lt 01/09/57, S/Lt same date and Lt 16/03/60. Srv'd *Athabaskan, Niobe*(RN for Trg.), *Iroquois, Inch Arran, Venture, Nipigon* and *Crescent*. Rls'd in '65. Jn'd naval reserve, prom LCdr and ret'd in '73. (e-Veritas)

Lt George Allan BROWN, RCNVR(Ret'd)

96 in Calgary 22/02/21. Jn'd RCNVR as Prob Mid in '43, thence Prob S/Lt.Confirmed S/Lt 09/05/43 and Lt 09/05/44. Srv'd *Kings, Drumheller, Geotgian* (M/S D-Day) and *Stadacona*. Rls'd in '45.(EB)

CPO John Allan Lloyd BROWNRIGG, CD*, RCN(Ret'd)

85 in Halifax 15/01/21. Jn'd as OS in Met branch, srv'd in *Cornwallis, Quebec, Magnificent, Bonaventure, Assiniboine, Huron, Shearwater, Stadacona*, MARCOM HQ and NDHQ. Ret'd in '84.(SR.*Chronicle Herald*)

Cdr Harvie Trist COCKS, CD*, RCN(Ret'd)

94 in Ottawa 14/04/21. Jn'd RCN as Cdt at *Royal Roads* 01/09/43. Prom Mid (S) 05/07/45, S/Lt(S) 05/03/47, Lt(S) 05/10/48, LCdr(S) 05/10/56 and Cdr 01/01/63. Srv'd *Warrior, Naden, Shearwater, Haida* (Korea), *Cataraqui* (RMC Staff), *Ottawa,* NSD Esquimalt, *Hochelaga, Niagara* (USN Exchange Pearl Harbor), *Prevost* (MBA Diploma UWO) and NDHQ. (*Citizen*)

PO1 John Walter DAWSON, CD*, RCN(Ret'd)

87 in Halifax 10/02/21. Jn'd RCN in '51 and srv'd, inter alia, *Iroquois*(Korea). Ret'd in '76. On committee for the statue "The Sailor", erected on Halifax waterfront. (SR,*Chronicle Herald*)

Lt George Frederick James HEARD, CD, RCN(Ret'd)**

85 in Halifax 27/03/21. Jn'd RCN as OS in '52. Srv'd, inter alia *Cornwalis, Bonaventure, Protecteur, Stadacona*, CFFS Halifax and NDHQ. Ret'd in '89. (SR,*Chronicle Herald*)

Lt(S) William Warren HIRTLE, RCN(R)(Ret'd)

96 in Bridgetown, NS 09/02/21. Srv'das RCNVR shipwright in WWII. Jn'd *Scotian*as UNTD Cdt(S) 28/12/48, prom RCN(R) S/Lt(S) 06/02/50 and Lt(S) 06/02/52. To Ret'd List in '53.(WC)

Cdr Thomas Calvin JENNINGS, CD, RCN(Ret'd)

Former NSNAC, 76 in Dartmouth, NS 24/01/21. Jn'd RCN as Cdt at *Royal Roads* 01/09/63 and srv'd *St Laurent, Qu'Appelle, Skeena, Nipigon,*

Annapolis, Iroquois, MARCOM HQ, NDHQ, CDLS(L) (RN Staff College) and CFB Lahr (SR,*Chronicle Herald*).

Cdr John Kinross KENNEDY, CD*, RCN(Ret'd)

Former NOABC, 93 in Newport Beach, CA 04/21. Jn'd*Royal Roads* RCN/RCAF College in '47 confirmed RCN(R) Cdt 30/04/49 and prom Mid 08/49. Tsf'd to RCN as A/S/Lt 12/50, prom S/Lt same date, Lt(P) 02/53, LCdr 02/61 and Cdr 01/69. Srv'd *Micmac*, *Niobe* (RN for Trg.), *Bytown* (att. for Plt Trg and qual "P"), *Shearwater* (VT-40, VF-871, VU-32), *Venture, New Glasgow*(XO), *Bonaventure* and M*argaree* (i/c). (PB, Canada's Naval Aviators)

A/S/Lt(S) Ronald Richard Wilson KINNEY, RCN(R)(Ret'd)

86 in Ladysmith, BC 08/10/20. Jn'd *Chippawa* as UNTD Cdt(S) 02/01/52 and prom RCN(R) A/S/Lt(S) 01/09/54.Rls'd 16/02/59.(WC)

LCdr[Maj(PLT)] Rejean Guy LANTHIER,CD, RCN(ret'd)**

78 in Albert Bridge, NS. Jn'd as OS 29/11/62 and srv'd as Air Rigger. Commissioned as Cdt 09/65, prom A/S/Lt 09/66, S/Lt same date, Lt 09/69 and Maj(PLT) 01/83. Srv'd *Shearwater, Bonaventure Venture,* VU-32, VS-880, RCAF Centralia, RCAF Potage La Prairie, CFRSU Quebec City, CFB Chatham, CFB Comox, and CFB Trenton. Ret'd 06/07/86. (*Citizen*, Canada's Naval Aviators)

Surg LCdr Ronald Glenross MacDONALD, RCN(R)(Ret'd)

99 in St. John, NB 01/03/21.WWII service while Med. Student in Army and then RCNVR. Commissioned Surg S/Lt 06/09/45. To Ret'd List in '46. Jn'd *Brunswicker* 20/08/53 as Surg Lt (sen. 01/08/43) and prom Surg LCdr 01/08/55. Ret'd in '58.(WC)

CPO2 William Josef MASER, CD, RCN(Ret'd)**

83 in Sackville. NS 25/03/21. Jn'd as OSLMS in '56. Srv'd. inter alia, *Cornwallis, Stadacona, Bonaventure* and *Iroquois*. Ret'd in '92. (SR, *Chronicle Herald*)

Cdr[LCol(PLT)] George Barry MONTGOMERY, CD*, RCN(Ret'd)

85 in Halifax 12/05/21. Jn'd RCN as Cdt at CMR 09/53, prom Mid 06/56, A/S/Lt 03/58. S/Lt(P) same date, Lt 10/60, LCdr 07/66 and LCol(PLT)07/73. Srv'd*Niagara* (USN Flt Trg.), *Shearwater, Bonaventure*, VS-880, HS-50, CFSC (Course 4), MARCOM HQ, HS-50(i/c). HS-443(i/c), CDLS(W) (SO Maritime Air) and Maritime Warfare School (Deputy Commandant) Ret'd 07/79. (PB)

CPO2 Albert Bernard NOLAN, CD*, RCN(Ret'd)

88 in Halifax 09/02/21. Jn'd RCN in '53 and srv'd, inter alia, *Fundy, Nipigon* and *Annapolis*. Ret'd 11/82.(SR,*Chronicle Herald*)

PO1 Douglas PARKER, CD*, RCN(Ret'd)

76 in Halifax 09/03/21. Jn'd RCN as OS. Srv'd *Cornwallis, Stadacona, Cape Scott, Crescent, Qu'Appelle, Iroquois, Assiniboine, Fraser, Preserver* and CFFS Halifax. (SR, *Chronicle Herald*)

Lt David Graham RAYNER, RCN(Ret'd)

83 in Kingston, ON 03/05/21. Jn'd RCN as Cdt at *Royal Roads*10'09'54, fll'd by RMC, prom S/Lt 05/59 and Lt 07/61. Srv'd*Stadacona* (1stPre Fleet Cse.), *Terra Nova, Saguenay* and *Stadacona* (as a "schoolie"). Resigned in '67. (e-Veritas)

Surg Lt John Playter SHERIN, CD, RCN(R)(Ret'd)

94 in Lakefield, ON 21/02/2. Jn'd UNTD at *York*

as OS (Officer Candidate) thence Cdt(S) 03/06/49. Prom RCN(R) A/S/Lt(S) 01/09/49 and prom A/Lt(S) on Ret'd List. Later redesignated Surg Lt (sen. 19/11/51) attached *Discovery*) and srv'd several ships.(WC)

Paymaster Lt Walter Douglas SNAIR, RCNVR(Ret'd)

104 in Renfrew, ON 10/04/21. Jn'd RCNVR as Prob S/Lt in '41 and prom Paymaster Lt 17/05/41. Srv'd*Royal Roads, Bytown* and *Unicorn*. Rls'd in '45. As a child, survivor of the 1917 Halifax explosion. (*Citizen*)

A/S/Lt(E) Douglas Franklin WHALLEY, RCN(R)(Ret'd)

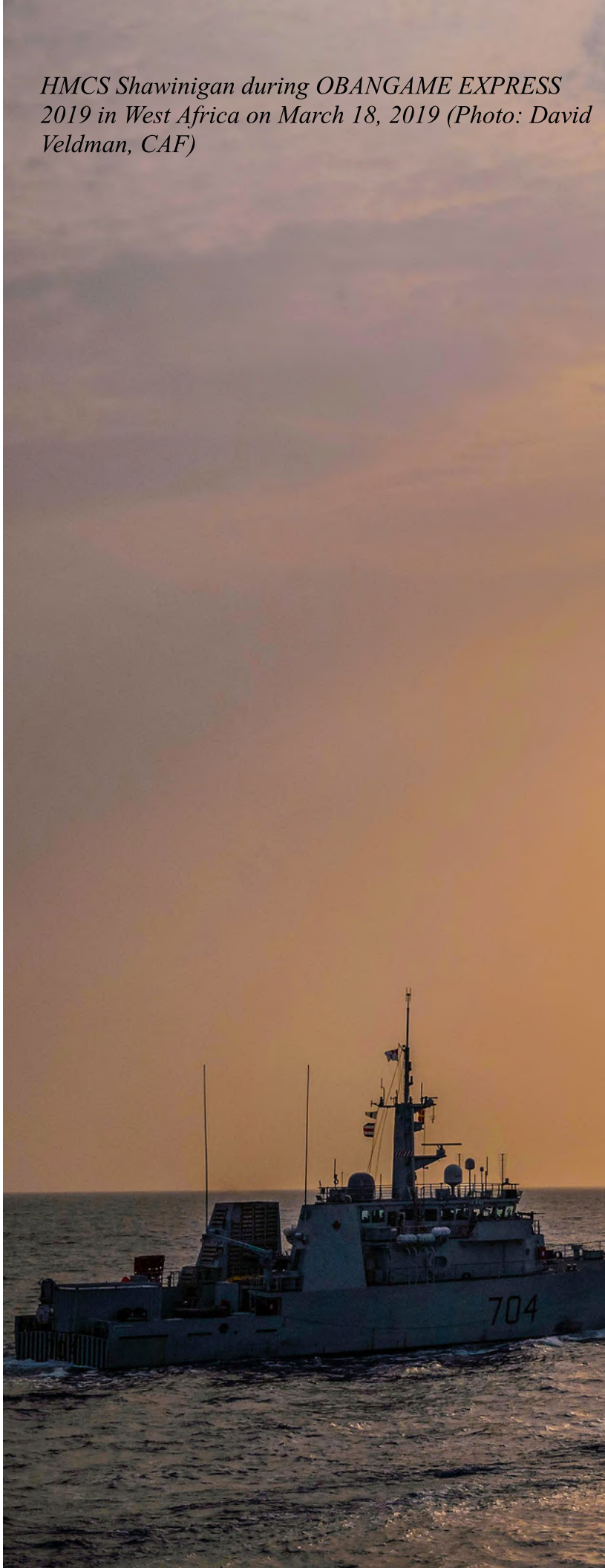
84 in Winnipeg 25/12/20. Jn'd*Chippawa* as UNTD Cdt(E) and prom RCN(R)A/S/Lt(E 01/07/56. To Ret'd List in '57.(WC))

Act Lt(MED) Brian Angus WHERRETT, RCN(R)(Ret'd)

86 in Kingston, ON 04/01/21. Jn'd *Cataraqui* as UNTD Surg Cdt 02/01/53, prom RCN(R) A/S/Lt 01/05/55 and A/Lt 01/05/57. To Ret'd List in '60 as A/Lt(MED).(WC)

Surg S/Lt Ralph Douglas WILKINSON, RCN(R)(Ret'd)

89 in Montreal 14/01/21. Jn'd *Cataraqui* as UNTD Surg Cdt 02/01/51, prom A/Surg S/Lt 01/07/53 and Surg S/Lt same date. To Ret'd List in '57. (WC)



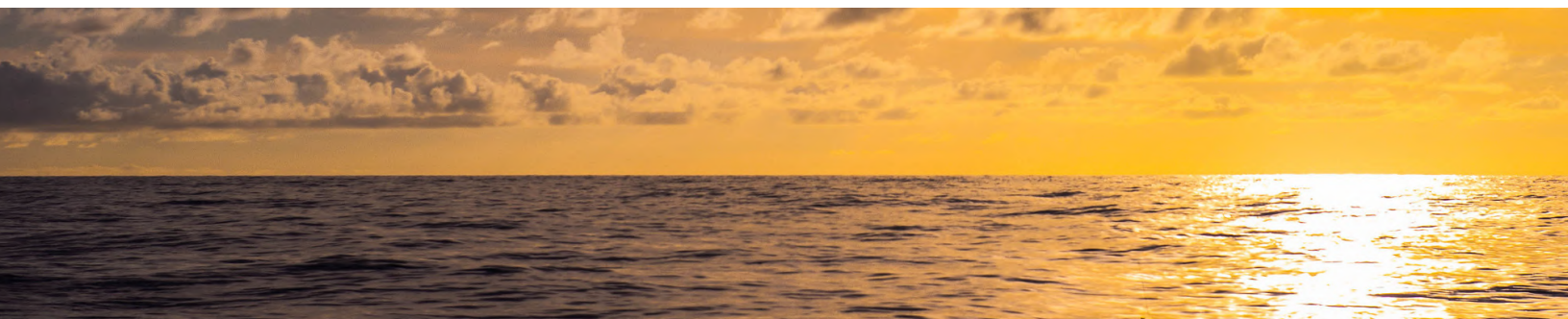
HMCS Shawinigan during OBANGAME EXPRESS 2019 in West Africa on March 18, 2019 (Photo: David Veldman, CAF)

David McClary Johnston (1936-2021)

Duty, Justice, Service. It is with sadness that we announce the passing of our beloved husband, father, grandfather, uncle, and brother David McClary Johnston. David is survived by his wife of 62 years, Mary Ellen; children Chris (Julie) and Greg (Tanya); grandchildren Nickolas, Samantha, and Matthew; and brothers Craig (Shirley) and Michael (Penny). David (or Sir David by his daughters-in-law and close friends) will be remembered for his poetry, his many bemused philosophical observations (which he liked to share), and his dedication to family and friends. He enjoyed golf, tennis, good conversation, and anything to do with the sea; especially when exploring the Coast of BC by sailboat.

David was born on March 5, 1936, the middle son of Milton and Phillis Johnston. Upon graduation from Langley High, David attended UBC obtaining a LLB in 1962. He was accepted into The University Naval Training Division in 1956, and later served in the Naval Reserve at HMCS Discovery retiring with the rank of Commander. He was appointed Commanding Officer of HMCS Discovery from 1975 to 1978, and Aide de Camp for two BC Lieutenant Governors from 1968 to 1974.

He joined Davis LLP in 1962 and practised there for 35 years. David was committed to a number of civic and charitable organizations. He was knighted in the order of St. John Ambulance where he served as Chancellor (Priory of Canada), Governor & Chair of the BC. Corps of Commissionaires, Honourary Consul of Malaysia, Secretary of the Vancouver Consular Corps, and President of the Last Post Fund.David and Mary Ellen moved to Sechelt where they lived on the seaside for 22 years. They moved back to the Lower Mainland in 2011. David passed away peacefully on April 21, 2021 at their home in White Rock with Mary Ellen by his side. In lieu of flowers, please donate to the BC Cancer Society. A Celebration of Life will be held at a later date.



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You may, alternatively, donate on-line through Canada Helps. Go to their website (CanadaHelps.org), enter Naval Association of Canada in the search field, and follow their instructions.

Thank you for your support!

HMCS Harry DeWolf participates in light sabre drills. (Image: MARLANT twitter)