

Starshell

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Cover Image: HMCS Halifax (Braden Trudeau, Combat Cam)

From the Editor Adam Lajeunesse



It's been a busy few months for the Navy. HMCS *Harry DeWolf* has embarked on its builder sea trials while the keel of the future HMCS *Protecteur* was laid down in British Columbia. HMCS *Margaret Brooke* is in the water, and the Government of Canada has added a third shipyard to the National Shipbuilding Strategy.

This edition of *Starshell* looks at some of this progress and offers a suite of interesting articles from our contributors. This month, we've included an in-depth study of women in the RCN by Catherine St. Jacques — both to highlight this important theme and to draw readers' attention to the great work being turned out through the Niobe paper series. Commander Michael Eelhard gives the NAC community a look at HMCS *Ville de Québec*'s Arctic deployment with the Canadian Leaders at Sea and our assistant editor, Chris Yurris, takes a look at the RCN's recruiting efforts.

Richard Archer give us a fascinating profile of Captain(N) (Ret'd) James Carruthers' contributions to the RCN and we look at the gorgeous dazzle paint that the Navy is using to mark the 75th anniversary of the Battle of the Atlantic. As this edition covers both Remembrance Day and the New Year we include the commemorative comments of the Minister of National Defence from November as well as a special summary of the RCN's 2019 from Vice Admiral Art McDonald.

As always I encourage our readers to reach out to me if they would like to contribute, or have ideas for *Starshell*. As a NAC publication we want to hear from you and publish your thoughts and experiences. Happy reading.

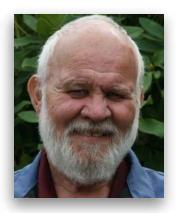
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From the Bridge

Bill Conconi, National President

Fellow members:

As we enter the New Year a few challenges and opportunities confront us. One challenge is our membership numbers as our base continues to diminish as the years take their toll. This challenge is matched by some opportunities as we build our Naval Affairs program and look for ways to connect to a younger demographic. Your Board takes this seriously and is working hard in both areas.

Regarding membership, we are looking at a paradigm shift in how we support our branches and build membership. We are also looking at other categories of membership that will engage youth, as well as the industries working to support our navy. We do not have all the answers yet but are working hard to move forward. As a Naval Association we look for ways to more effectively engage our serving members at all levels. A part of this is to design resources and activities that are relevant, and host events that allow direct engagement. An important element here is our governance and a need to include other groups and interests on our Board. Out west, NAVCVI is building a relationship with the Association of BC Maritime Industries and working with the navy to network in the early after hours. I will keep you posted on how things progress. Right now, all signs are positive.

Another opportunity we are developing is the engagement of university student and cadets. Again, once signed up, we need a plan to build involvement. They need to be engaged in this process. Past President Jim Carruthers did pioneering work in this area, establishing needed direction. I believe that continued work in this area is essentia.

On a very positive note, I recently I had the informative pleasure of browsing our Naval

Affairs online library. This includes 24 briefing papers, 7 Niobe papers, 32 bibliographies and many of the foundational documents that speak to the current situation in the navy. I am very impressed. Our Naval Affairs Director, Ian Parker, and his team are doing an exceptional job. Our children's book, "Mom's in the Navy" is very popular; the first printing is almost sold out. We will be ordering more.

Our briefing notes range from the early years of our navy to the current issues we are facing. The Niobe papers are analytical essays that delve deeper into some of the issues our navy is facing or has faced over the 90 years of our existence; prepare for some enjoyable reading. A hidden gem are our bibliographies. These are more than just a listing of resources (although they are that) but also include links to some excellent papers written by others you would not normally be Combined, these papers of. documents are an excellent resource for us and a key opportunity to introduce others to who we are and what we do. In the end, perhaps, a good reason for them to join us in our efforts to support our navy and all that they do.

As we look to our path forward, we look as well to you in helping us get there. Our membership challenges can, in part, be met by the effective employment of our assets. You will recall my earlier comments about "Attract, Connect, Engage, Commit", a useful template for the path ahead. Too often we execute on the former but struggle with the latter. This is where the personal element, and the effective use of our resources, is so important. I encourage and look forward to your support and involvement here.

Yours Aye Bill Conconi President

NAC ENDOWMENT FUND DONATION

Money raised through the NAC Endowment Fund allows our association to meet its mandate of increasing the awareness of Canada as a maritime nation and bringing attention to the critical role our Navy plays in the protection and development of our maritime interests.



I want to support our Naval Heritage and Endowment Fund with my cheque, which is my enduring property gift for:

\$100 ____ \$500 ___ \$1,000 ___ Other amount \$ ____

NAC Branch (if applicable) ____

UNTD ___ Venture ___ Other ___ (Check all applicable)

Address ___

City ____ Province ____

Postal Code ____ Phone () ____

Email ____

Email ____

Standard Stan

OR Donate Online

If you wish, you may donate on-line through Canada Helps. Go to www.CanadaHelps.org, enter Naval Association of Canada in the search field, and follow their instructions.

Please make your cheque payable to "NAC Endowment Fund" and mail to:

NAC Endowment Fund PO Box 42025 Oak Bay 2200 Oak Bay Avenue Victoria, BC V8R 6T4

Receipts will be provided for income tax purposes (in the case of a donation through Canada Helps, they will be issued by that organization). The Canada Revenue Agency charitable registration number is 11924 6551 RR0001

Other donation options

___ Check here if you wish to donate securities to the Fund (there are tax advantages to using this approach). The necessary information will be sent to you.

___ Check here if you wish to leave a legacy to the Fund. We will send you information on including the Endowment Fund in your will.





The Front Desk

A brief look back at 2019 and what to expect in 2020

David Soule, Executive Director

Success in 2019 and a challenge for 2020. From my perspective,

2019 was a busy year for NAC National and many of our branches. It saw our Naval Affairs program continue to evolve with a number of new briefing notes and Niobe Papers. For me one of the initiatives that demonstrates the value of the program was the launch of our children's book "Mom's in the Navy" in November 2019. This effort, led and championed by Dr Ann Griffiths our naval affairs program coordinator, was born from the result of a conversation Ann had with a military spouse who said "we have books about firemen, police, and other first responders, so why not a book about sailors?" It is a great little story with superb illustrations – it would make a nice donation to your local library or as a story about those who serve in our Navy for your family; young and old.

Success. Has the book had an impact on informing the public about the RCN and what its personnel do? I would argue yes, with a potential to grow much more. The East and West Coast Military Family Resource Centres in Halifax and Esquimalt will use it as part of their programs to support families of deployed sailors and other servicepersons. I personally donated several copies to the local library in Ottawa and was informed that there was even a waiting list. The book has been enthusiastically received (and individual members have bought many copies) by the RCN's Canadian Leaders at Sea program (CLaS), who will distribute it not only to family members but within their respective organizations.

Based on a recommendation from the RCN for their charity of choice NAC will be sharing a portion of the revenue from sales with these very necessary family support centres in Halifax and

Esquimalt. We are also engaged in developing revenue sharing arrangement with other potential "customers" such as HMCS Haida and local museums. All to say I regard this as a "value-added" initiative.

The Challenge – Marketing

While "Mom's in the Navy" is a positive story, the real challenge we have is in marketing, not just the book but our Naval Affairs program in general. The material is there, those who have looked at it routinely comment on its quality and use as foundational material, but we need to make more folks aware of it. This will be one of our missions for 2020.

National Board Member Vacancies

Your National Board Nominating Chair, Michael Hoare is working on a list of potential nominees for this year's board member elections for which there are three vacancies. That said if you or you know someone who might be interested let Mike or me know. We are especially looking for folks who are interested in marketing and supporting our Naval Affairs program. We need to build some depth and expertise on the Board so we can succession plan and ensure we have the right talent to achieve our objectives.

NOABC 100th Anniversary, NAC conference and Special Board Meeting 2-6 October 2019

For those of you who participated in this event I am sure you would join me in thanking NOABC and those involved in organizing and executing the program with a Bravo Zulu. The conference day included a very informative discussion on China and associated security concerns for

Canada, an overview of the RCN, RN, and USN Reserve systems including their challenges and future plans, a good operational overview of the RCN by Rear-Admiral Auchterlonie (Comd MARPAC), and briefings by Seaspan on their ship-build program (Cory Zachrisson) and a brief about the Association of BC Marine Industries (ABCMI) by their Director Dan McGreer. As background, NAC National and local branches are working to establish closer working relationships with like-minded associations such as ABCMI. It is a way to attract new members as well as market what we do and make them more aware of what or Navy and Coast Guard do.

A number of tours were also offered to our members including a day at sea in HMCS *Edmonton*, through the Port of Vancouver Operations Centre, and onto the local campus of the BC Institute of Technology (BCIT) Marine Campus. On the Saturday, NAC members were invited to tour Seaspan shipyard facilities, where we observed several sections of the future JSS under construction (HMCS *Protecteur*). All-in-all it was a very informative day to see the progress that Seaspan has made to begin the construction of JSS and understand the challenges that had to be overcome, all with the aim to ensure to ensure that Canada's National Shipbuilding Strategy (NSS) is a success!

The NAC Special Members and Counsel of Presidents Meetings were held on Saturday October 5th. These meetings provided an opportunity for members, including a number of branch presidents, to share individual NAC Branch best practices in regard recruiting new members and branch activities that have or will take place that will offer an opportunity to attract new members and inform members about a national membership system that will be introduced later in 2020. Everyone involced received an interesting update on the NAC Endowment Fund from the EF board members (Derek Greer and Mike Morres). Given the travel and accommodation costs associated with attending these events, it is intended to make better use of IT to broadcast these meetings nationally where possible.

Several very lively and entertaining social events took place including a dinner to celebrate NOABC's 100th anniversary. To top off this very successful weekend, long-time NAC members the venerable Ron

Harrison and Canon William (Bill) Thomas held a very moving memorial service at the Sailors Point Memorial in North Vancouver. All-in-all, this was a great series of events, and I would like to once again extend my thanks to NOABC members who organized and executed the program.

2020 BOA Gala Ball, National Conference and AGM (30 April - 3 May) Ottawa

In the coming weeks, you will be able to register for the following program associated with the 2020 Battle of the Atlantic Weekend in Ottawa. This is a National event which is being supported in full by NAC-Ottawa Branch. This year is the 75th anniversary of the end of the Second World War: and these events are being held in recognition:

- 30 April: Battle of the Atlantic Gala, Canadian War Museum
- 1 May: NAC Conference The Battle of the Atlantic in a Canadian Context
- 2 May: NAC National Annual General Meeting
- 3 May: Battle of the Atlantic Parade, National War Memorial

The conference and NAC AGM will take place at a downtown hotel and this location will be announced once we have a contract in place. A single ticket for this year's Gala Dinner will cost \$125. The Conference price will be \$100. A combined ticket for both the Gala and Conference will be available at a cost of \$200. All prices include HST. Registration details will be forthcoming soon and will be posted to the national website and in NAC News.

NAC is also aware that there will be other BOA 75th anniversary events taking place across the country. Information will be posted to the NAC national website as details become available. You can also find information through TWITTER at #BOA75.

2020 Endowment Fund Grant Applications

Applications are due for submission, signed by your local branch president, to me by 31 May (or earlier if at possible). The details and form can be found on the National website. Remember you can also donate to the fund at any time, not just during the end-of-year official campaign drive.

2020 NAC Awards Nominations

Nominations, through branch presidents, are due to me by 31 May (or earlier if possible) Details can be found at https://www.navalassoc.ca/nac/nac-awards/ Please note that the intent of these awards is to recognize service to NAC (NOAC in some cases) not other organizations the individual may be involved in. You should also note that there are a number of other ways to recognize those who contribute to NAC and or their local branch. These are detailed in the reference link as well.

Naval Captain Bill Wilson Scholarship

I am very pleased to announce this scholarship initiative and heartily encourage my fellow members to advertise it. Perhaps one of you may even apply for this generous opportunity. This initiative has been made possible by our Calgary branch with a matching contribution from the NAC Endowment Fund. It will be awarded in 2020 for the first time. The scholarship is designed to encourage academic study of matters relating to maritime security and defence. This five-thousand dollar (\$5,000) scholarship will be offered a Canadian student who is applying to or is enrolled in a Masters program in military and strategic studies for the academic year 2020-2021. Well done Calgary!

This is a significant initiative in more ways than one. Our Naval Affairs team has told us that these studies are in rapid decline across Canadian universities and really on life support wherever they currently exist (I speak of military and especially maritime strategy related studies at the university level). This has been the case for some time now. What this means is we have a very small pool of academics and few practitioners who have the background to argue for a capable Navy and the need for maritime security for Canada. We believe this is a major gap and initiatives like that announced above are a start to change this. We have a long way to go and I believe only an organization like NAC can address this.

National Membership System

As most are aware this system was to be fully

implemented in late 2020. The task is somewhat more complex that originally envisaged so the intent will be to implement a National registration system first, something we believe we can start doing as branches submit their membership lists for 2020. It was hoped that a "one-stop" payment system could be implemented easily, but there is more to be done. That said, this will remain a work in progress for this year and an information brief will be given as part of the 2 May National AGM in Ottawa. Some members have expressed concerns that branches will lose touch with their members but an automated system does not mean that branches will stop canvassing their members to renew memberships or stay in touch for all the reasons a branch exists (member support, etc...).

Marketing - Pat-on-the-Back

Last month I advised branch presidents that I had become aware that Calgary branch, through a variety of fund-raising activities had raised some \$40K for local Navy League and Sea Cadet corps. This caused me to look at what we do across all branches. No, I do not have a complete dollar figure to provide you, and while this should be no surprise to older NOAC/NAC members, the total giving in terms of funding, time, and talent to these organizations is significant! All to say this is part of marketing our brand, so let's do it! We support a strong and viable Navy but we also support youth programs that provide many young individuals an opportunity to gain self-confidence, develop a hard work ethic, and become better citizens. And I did not mention the fact that some branches have a generous scholarship program as well. Marketing – we need to do it!

Conclusion

I welcome your comments. Like our Navy, we all must move forward to face new challenges; membership, marketing ourselves, and supporting our Navy today to name a few. Today's NAC is not necessarily the NOAC/NAC you joined, just as the Navy many of us joined is not the Navy of today. Our learned best practices may have to be adjusted, or a totally new way of doing business may have to be found to meet today's and future challenges head-on.

As Richard Fadden remarked during the October NOABC conference, we are always challenged by "events, my (dear) boy, events" not the plan we thought would unfold or that the world, and how it works, would always be the same. Let's work to stay relevant.

I hope to see some of you in Ottawa end-April and early May. Thanks for your support this past year. All the best in 2020.

Bill Watson Scholarship

The Naval Association of Canada - Calgary Branch is pleased to announce the Naval Captain Bill Wilson Scholarship. The scholarship is designed to encourage academic study of matters relating to maritime security and defence. It will be presented for the first time in 2020.

The Naval Association of Canada - Calgary Branch will be offering a five thousand dollar (\$5,000) scholarship to a Canadian student who is applying to or is enrolled in a Masters program in military and strategic studies for 2020-2021.

Eligibility Criteria

Applicants must meet the following mandatory criteria. Applicants must:

- Be enrolled at an accredited university or college, either full-time or part-time in the school year 2020-2021. Both undergraduate and graduate students are eligible, however the scholarship is for study at the Masters level, so undergraduates must be in the process of applying for a Masters degree;
- Demonstrate an interest in pursuing a degree related to Canadian defence or security;
- Have a minimum grade point average of 70%;
- Be a citizen of Canada.

Note

The scholarship is for study only at recognized institutions in Canada. For applicants who completed a previous degree abroad, proof of acceptance or registration at a Canadian institution is required.

How to Apply for the Scholarship

- Applicants must submit an original copy of the most recent transcript from the academic institution that they are attending.
- Applicants must submit two letters of recommendation from individuals who are familiar with their accomplishments and career goals. At least one must be from a faculty member at their current college/university.
- Applicants must provide proof of Canadian citizenship (in form of copy of birth certificate, citizenship card or first page of passport).
- The main element of the application is that students must write an essay on the following topic:

What do you think are the maritime security issues Canada faces now, and that may arise in the near future? Are there any defence and foreign policy initiatives that you believe the Canadian government might consider in response to these issues?

The essay is to be maximum 3,000 words (excluding references). Use of citations is expected.

The paper is to be sent to Jeff Gilmour (at jeffgilmour@telus.net), the Organizer of the Scholarship, who will pass the applications to the Review Panel for judging. Submissions will be judged anonymously. The panel of judges will assess the submissions based on both the quality of the writing and the ideas presented in the paper. Applications are to be received via email by 30 April 2020.

Award of the Scholarship

The president of the NAC Branch in Calgary will announce the winner on or before 1 June 2020. Captain Wilson will present the cheque to the winner in the month of June. The winning submission will be considered for publication in the *Canadian Naval Review*. If you have any questions about the scholarship, please contact Jeff Gilmour at jeffgilmour@telus.net.

Canada Marks Remembrance Day

Ottawa, Ontario – The Honourable Lawrence MacAulay, Minister of Veterans Affairs and Associate Minister of National Defence, the Honourable Harjit S. Sajjan, Minister of National Defence, and the Honourable Ralph Goodale, Minister of Public Safety and Emergency Preparedness, issued the following statement today, on the centennial of the first Remembrance Day:

"On 11 November 1919, Canada first marked Armistice Day, commemorating the agreement that ended the First World War on Monday, 11 November 1918, at 11 a.m.

Since then, Canadians gather on the eleventh hour of the eleventh day of the eleventh month to honour and remember those who served Canada, past and present, in times of war, military conflict and peace.

On Remembrance Day, we extend our deepest thanks to those who gave their lives in the service of their country. We thank Veterans, members of the Canadian Armed Forces and the Royal Canadian Mounted Police, the families that supported them from home, and all those who have served in the cause of peace and freedom. It is also important to remember the long tradition of service of the many Indigenous peoples, whether they came from First Nations, Inuit, or Métis communities.

Today, we ask Canadians to take a moment to reflect on the incredible sacrifices made by generations of Canadians, both past and present. At cenotaphs and memorials across the country, let us pause to remember and honour their service, courage, and valour. We owe them a debt of gratitude for their protection and preservation of the rights and freedoms we enjoy today.

Canada remembers. Lest we forget."



In Remembrance

By Gord Forbes

The following talk was given by Gord Forbes to a local High School to mark Remembrance day.

Good Morning. I am very honoured that you are going to put up with me for the next few minutes. My name is Gordon Forbes and I am a veteran who served almost 28 Years as an officer in the Royal Canadian Navy.

To quote a man named Arthur Koestler "The most persistent sound throughout man's history has been the beating of war drums."

How many of you play video games? How many of you play video war games like Call of Duty or Battle Warships? Do you think this is a real depiction of war? Of course, it's NOT. In war you don't hit reboot and resurrect yourself. In real war, the threats are multidimensional. Information is sporadic and unpredictable. Real people get killed.

War represents failure – a failure of foreign policy – a failure of diplomacy – a failure of tolerance – a failure to understand each other.

We remember on this day, 11 November, because that was the day that World War 1 ended in a cease fire. World War 1 was the worst war in history . . . up until that time.

How would you feel if, tomorrow morning you came to a class of 30 and found only 2 other members of your class were there? That is kind of like what happened to the Royal Newfoundland Regiment on the 1st of July 1916 on the opening day of the Battle of the Somme at a village called Beaumont Hamel. The losses sustained by the regiment that morning were staggering. Of 800 Newfoundlanders who went into battle that morning, only 68 were able to answer the roll call the next day, with more than 700 killed, wounded or missing.

On that same day, over 150,000 men of the British Army were killed, wounded or missing. That battle ended in a whimper in the middle of November 1916. At that same time, the French Army had been fighting

another, equally devastating battle, at Verdun. These were two of many such battles throughout that four year war. War is hell.

In World War 2, it is estimated that 2 million Russian soldiers were killed in the first six months after the attack by Germany in 1941. It is also estimated that 20 million Russians, military and civilian, were killed in the entire war. Horrifying numbers! War is hell.

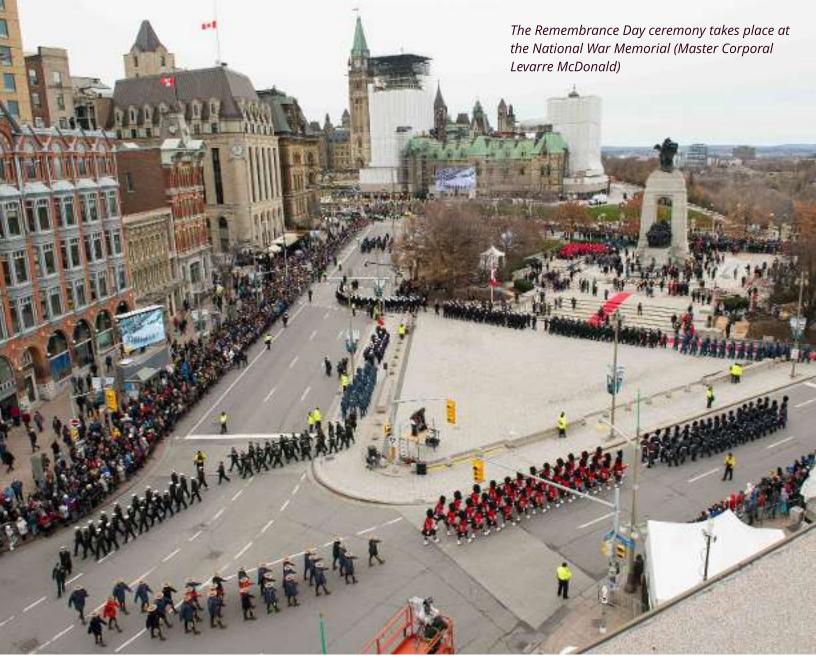
Even today, men, women and children, die every day in one war or another. For modern war is not restricted to neat battle fields. They are fought over entire countries. I can give one personnel example. I was born in England in 1943, the middle of the Second World War. After the war we lived in an area where V1 flying bombs had passed over on their way to London. Some fell short. As a four and five year old I played with two other boys my age. Between the three of us we had three good eyes . . . and I had two of them. The other boys had been blinded by flying glass from a V1 bomb explosion across the street from their houses.

I, myself, suffer from post traumatic stress that induced clinical depression and was caused by a tragedy at sea that killed nine of my shipmates. So much for horror stories.

Is war ever necessary? Aggressive war should never be justified. Whether it is an attack on another nation, ethnic or religious group, or tribe it should never happen. But defending oneself against such an attack is probably, unfortunately, necessary. Whether the aggressor is another country or a terrorist organization, defence is justified.

Wars tend to be started by governments of older men, and now women. They are then fought by young men and women.

One of the forms of warfare that we are seeing vividly today is civil war. Civil war is never civil and as we see in Syria, it can be very violent and cruel. In the past 30 years there have been several civil wars in Africa alone – Somalia (Black Hawk Down), Sudan, Rwanda, the Congo, and Nigeria and several of these civil wars are still ongoing. The American Civil War in 1861 to 1865 had the largest number of American battle deaths of any war ever fought by the United



States. Over 600,000 killed. Whether aggressive or defensive, war is hell.

If wars have to be fought, how should they be carried out. It is nice to think that we have the Geneva Conventions to keep war "civilized". They indicate the way war is supposed to be fought. But once battle has been joined, war becomes armed chaos. The Conventions are broken all the time, even by countries that we think are civilized and our allies. Survival becomes the one measure of success. In many cases, the original aim of a conflict is forgotten and fighting rages on regardless, as stated by General Colin Powell, "fighting often continues long past the point where a 'rational' calculation would indicate that the war should be ended." The objective of the Iraq War was to change the regime of Saddam

Hussein. This was achieved within days of the initial attack. The Iraq war went on for months, and in one form or another goes on today. War is, indeed, Hell.

But there is one war that we should probably all fight. It may be the war that will, finally, save civilization as no other war has ever done. You don't have to sign up for this war. There is no army to join. No drills to carry out. All you have to do is carry on with your life in a way that will sustain our planet. I speak, of course of the war on climate change. This is a challenge you should all accept. Thank you for your time and indulgence. It has been my pleasure to be here today.

A New Year's Message from Vice Admiral McDonald

Can you believe the holidays are already upon us? As they arrive and we all have the chance to reflect on a year well spent, I thought I'd reach out with some reflections as I share best wishes to you and yours from the incredible team of shipmates you know in the RCN and our extended naval family!

What an incredible year 2019 has been for the RCN – doing what I've called "ready & steadi" while delivering readiness and concurrently working the priorities of my on-command-assumption flaghoist signal acronym "steadi!" Like all of you, I am immensely proud of the hard work that the team has accomplished and would like to take a moment to highlight the contributions and accomplishments of our amazing RCN sailors who have proven us to be "Ready to Help, Lead and Fight" while continuing to deliver relevant, notable impacts at home and around the globe. In this Season, my reflections on the past year quite naturally begins with an acknowledgment of the RCN's quite practical contributions to "peace on Earth!"

To begin with, recall that our Halifax-class frigate deployments by HMC Ships *Toronto* and *Halifax* have seen Canada maintain a near-constant presence in supporting NATO assurance measures in the Euro-Atlantic theatre and concurrently with a significant Indo-Asia Pacific (IAP) presence — in 2019 delivered by HMC Ships *Regina* and *Ottawa*-that has been noted by Allies, partners, friends and others in the region and across the globe.

Likewise, earlier this year our Kingston-class ships (HMC Ships *Kingston* and *Shawinigan*) once again deployed to West Africa, supporting maritime security and working to build capacity of our partners in the region. They (HMC Ships *Yellowknife* and *Whitehorse*) also patrolled the Caribbean and Eastern Pacific waters, combating transnational criminal and terrorist organizations and making meaningful contributions to maritime security.

Our submariners, meanwhile, following their historically successful 2018, have been busily



preparing the boats for steady-state three boat operations in the year ahead.

In addition to the impressive contributions of our ships, Canadian naval leadership was in high demand on the international stage this year – RCN Flag Officers leading two multi-national maritime commands in 2019.

In the Arabian Sea, Commodore Darrin Garnier concluded his superb career delivering the inspired leadership for which both he and Canada are known when he commanded CTF150 from December 2018 until April 2019! Of note, on his watch, HMCS *Regina* seized and destroyed 9,155 kg of illegal narcotics worth just over \$4.7 million (USD) regional wholesale value during her CENTCOM / CTF150 service while on a six-month IAP deployment.

Then mid-year, seizing an out-of-cycle opportunity, Canada provided both the Commander (and majority of the staff) as well as a Flagship (HMCS Halifax) for one of NATO's standing naval Standing NATO Maritime Group Two forces, (SNMG2). In assuming this duty, which was concluded successfully early this week, Commodore Josée Kurtz became the first woman to command a Standing NATO Maritime Group – a happenstance of which we couldn't be more proud! Both of these appointments demonstrate Canada's active engagement and leadership on the world stage.

This year (2019) also marked the 50th anniversary of the HMCS *Kootenay* explosion, the worst peacetime accident in our collective memory. While



this tragedy had devastating effects, it helped shape and redefine our damage control practices, helping to prevent future tragedies. The bravery, heroism and sacrifice of the crew of HMCS *Kootenay* are the epitome of the people first, mission always ethos that underpins our modern service. For this reason, I was delighted to be able to present a Commander RCN Unit Commendation to our *Kootenay* shipmates and families – heroes all!

Equally as significant ashore here at home and related to our efforts to put people first, including key CAF/DND-VAC work to address transition and post-service support to service personnel upon retirement.In July we hosted a town hall with the 2004 HMCS Chicoutimi crew, their families, and the Care and Custody Team to apologize for delays in communicating the results of the HMCS Chicoutimi Health Study, to share those results, and to align on the way-ahead together in their post-service journey. I'm so happy that, as a result of this and other work, we're able to confidently assert that we remain committed to ensuring military members and their families receive the high standard of health care and support they deserve. I'm also so happy that as a Navy we have managed to reinvigorate connection to the 2004 Chicoutimi crew - a special group who, as individuals and as a crew, acted admirably and heroically while saving their boat and who, ever since and like the Kootenays, helped us to define what it means to look after one another and our families, what today we know as putting "people first!"

I'm so proud of these and the countless other efforts we have launched to ensure that ours is a Navy

equally known for not just WHAT we have done, but equally so HOW we have done it! Here I speak of our ongoing efforts in such areas as addressing key socio-institutional issues like the elimination of Harmful Inappropriate Sexual Behaviours and, likewise, of Hateful Conduct in our workplace as well as complementary efforts in such areas as First Nation outreach/reconciliation and promoting a diverse and inclusive workplace. I'm convinced it's efforts such as these that helped the RCN be the first Canadian military service in history to be recognized by Forbes as one of Canada's Best Employers in 2019.

In celebrating our most significant contributions, activities and accomplishments of 2019, I'd be remiss if I didn't cover something of which we can be hugely proud - our many successes in advancing definition and delivery of the future Fleet! You will, of course, been tracking the progress of the Class of Arctic Offshore Patrol Vessels (AOPVs) through the Builder's vard where 4 of 6 future HMC Ships are in various states of build – including the first-of-Class, Harry DeWolf, which you'll have seen has already been at sea for Builder's trials. Meanwhile, after having cut-steel in 2018, the future HMCS Protecteur has continued to grow under an Early Block Build strategy over the past year. And, of course, it's been an incredibly significant year for the Canadian Surface Combatant (CSC) project; Preliminary Design is now underway! Meanwhile, since the delivery of our Future Fleet is not only about ships, we've continued progressing the enterprise effort that sees personnel and training, infrastructure and doctrine elements being advanced commensurately – and making Future Fleet delivery a pan-navy effort. And as the Future Fleet definition and delivery continues it is accompanied by a Department-leading digital transformation effort. Indeed, bridging to the future is a very real pre-occupation of naval planners and staffs.

From just this sample, amongst the many activities and related stories of the RCN in 2019 (many of which are routinely shared via our routine RCN PA "Your Navy Today" product distributed electronically), I'm sure you can appreciate - and hopefully share - my optimism as 2019 comes to a close!

And 2020 promises only to be better, considering that we're tracking to have the RCN grow by two ships - HMC Ships Harry DeWolf and Margaret Brooke – our first real growth in decades and the first of the next twenty years in which the RCN should receive at least a new ship each year! With this as great context, there's much immediately ahead of which we should be excited to see and of which I look forward to keeping you informed. Perhaps most strikingly, as you'll recall, May 2020 will mark the 75th Anniversary of the end of the Battle of the Atlantic and we'll be celebrating this all year since our proud naval and maritime history could not be better represented than by our success in this critical Second World War campaign. As these celebrations gear-up, I need note the tremendously positive feedback that we've received for adopting the vintage Admiralty paint schemes in HMC Ships Regina and Moncton! Building on the great legacy of our fighting service, what a promising year lies ahead!

Of course, we would not be able to achieve mission success without the unwavering love and support of our families and loved ones at home. Not surprisingly, therefore, I – like all of my predecessors – have continued at every opportunity to extend my deepest thanks and gratitude to them for all their sacrifices and support year after year.

And if I may conclude while speaking of family, I take this opportunity to thank you, key members of our extended naval family, for your support of the RCN/CAF! Your advice, encouragements and efforts are truly appreciated! I am therefore hugely delighted to be joined by the Command Chief Petty Officer, CPO1 Dave Steeves, as well as all of your RCN shipmates at home and those standing watch around the globe (including HMCS *Halifax* who'll remain deployed over the Holidays and so will be visited by the Comd CPO and I), to wish you all the best for a joyous holiday season and a happy New Year!

Yours Aye, Art McDonald Vice-Admiral Commander RCN



The RCN Commemorates the Battle of the Atlantic with Dazzling Paint Job

Fought from 1939 to 1945, the Battle of the Atlantic was the longest continuous battle of the Second World War and one of Canada's greatest contributions to the Alliance victory over Nazi Germany. Over six years Canadian merchant ships moved soldiers across the ocean, escorted by the rapidly growing – but always overstretched – Canadian Navy. This year, the RCN is celebrating Canada's victory in the Atlantic and marking the 75th anniversary of the end of the war in dramatic fashion, painting two of its warships in period 'dazzle' patterns.

The idea for this striking ship camouflage variants of which were sometimes called dazzle or "razzle-dazzle" - originated in the First World War, using one or more colours and a wide range of sharp geometric patterns interrupting and intersecting each other, designed to obscure or confuse enemy submarines as they tracked the surface craft. Credited to the British marine artist Norman Wilkinson, the patterns consisted of complex geometric shapes in contrasting colours. Unlike other forms camouflage, the intention was not to conceal – indeed it made the ships stand out against the horizon. Instead, it made it more difficult for an enemy to estimate a target's range, speed, and heading. Norman Wilkinson explained in 1919 that he had intended dazzle primarily to mislead the enemy about a ship's course and so cause them to take up a poor firing position. 1 Each ship's dazzle pattern was unique to avoid easy identification of classes or types of ships.

The odd paint patterns were continued into the Second World War (to a lesser extent) as the Allies once again faced a German U-Boat menace. Many of Canada's River-class frigates adopted the dazzle scheme, as did the Tribal and C-class destroyers, as well as the Navy's workhorse Flower-class corvettes.

How effective the patterns were in protecting shipping remains uncertain. In 1918, the British Admiralty analyzed shipping losses, but was unable to draw clear conclusions. Dazzle ships had actually been attacked slightly more often than those sporting

normal paint jobs; however, of those ships struck by torpedoes, 43% of the dazzle ships sank, compared to 54% of the uncamouflaged. Similarly, 41% of the dazzle ships were struck amidships, compared to 52% of the uncamouflaged.² While hardly a silver bullet, the paint job did seem to do confuse U-boat tracking and targeting, making an accurate firing solution harder to achieve.

The testimony of one U-Boat captain suggested as much: "It was not until she was within half a mile that I could make out she was one ship [not several] steering a course at right angles, crossing from starboard to port. The dark painted stripes on her after part made her stern appear her bow, and a broad cut of green paint amidships looks like a patch of water. The weather was bright and visibility good; this was the best camouflage I have ever seen."

Effective or not, any advantage over the U-boats, no matter how small, was important. Great Britain was almost completely dependent on oversea supplies of foodstuffs and raw-materials, as well as a great deal of munitions and war supplies. Losing access to North American farms and factories would have doomed the Allies to defeat in the war. In his memoirs, Winston Churchill wrote "The only thing that ever really frightened me during the war was the U-boat peril."



This year's commemorative paint jobs mark Canada's victory in the crucial battle and commemorate the loss of more than 1,600 Merchant Navy personnel from Canada and Newfoundland (one out of every seven who served was killed or wounded) and nearly 2,000 RCN officers and men. As a percentage this casualty rate was higher than those of any of Canada's fighting services during the Second World War.⁵

On the East Coast, HMCS *Moncton* will sport this commemorative war-paint during its Great Lakes Deployment. In the Pacific HMCS *Regina* will show off its new colours at the 2020 Rim of the Pacific Exercise. The painting took 272 gallons of paint to complete and cost approximately \$20,000 (with the cost being covered by the Navy).⁶

The idea to push the retro look was originally put forward a decade ago for the Navy's centennial and several patterns were considered. The sharp angled dazzle pattern was a contender, as it certainly had a 'wow' factor and was the war-paint worn by HMCS Saguenay as it escorted Sir Winston Churchill aboard HMS Prince of Wales from the Atlantic Charter in Newfoundland in August Ultimately, the choice was made to adopt the patterns worn by HMCS Qu'Appelle during the Normandy invasion of 1944. This was an uncommon pattern, but picked for its distinctiveness from those of ships on the Western Approaches and complimentary to that scheme worn by HMCS Sackville, which highlights the contributions of the RCN to the Battle of the Atlantic.

The historic pattern was well preserved in photographs and matching the colours was easier than one might expect — given that most images from the period are black and white. Since these were official patterns, the colors are described in either Canadian Naval Orders or Admiralty Fleet Orders. The striking look has already received widespread praise and the two ships will keep it for a year.

Notes

- 1. Tim Newark, Camouflage, (London: Imperial War Museum, 2007), 74.
- 2. Peter Forbes, Dazzled and Deceived: Mimicry and Camouflage (New Haven, Yale University Press, 2009), 96

- 3. Newark, 74.
- 4. Winston S. Churchill, Their Finest Hour. (Boston: Houghton Mifflin, 1949), 598.
- 5. Veterans Affairs Canada, "The Battle of the Atlantic."
- 6. Todd Coyne, "HMCS Regina dons new 'dazzle' paint ahead of RIMPAC 2020 exercise," CTV News (October 4, 2019).

The History of HMCS Qu'Appelle

From: ReadyAyeReady.com: Ships of the Canadian Navy

Built in 1935 for the Royal Navy as HMS *Foxhound*, she was a member of the 8th Flotilla, Home Fleet, on the outbreak of war, and on September 14, shared in the sinking of U 39 off the Hebrides, the first U-boat kill of the war. In April, 1940, she took part in the second Battle of Narvik and that November was transferred to Force H at Gibraltar. On June 18, 1941, she shared in the sinking of U 138 west of Cadiz, and took one convoy to Malta. From January, 1942 to May, 1943, she served with the Eastern Fleet, then transferred to West Africa Command.

In September 1943, *Foxhound* returned to the U.K. for conversion into an escort destroyer and on February 8, 1944, was transferred to the Royal Canadian Navy and commissioned as HMCS *Qu'Appelle*. She served with the RNC on D-Day with Escort Group 12, and afterward took part in Biscay and Channel patrols. She was paid off on October 11 1945 and served thereafter as a stationary training ship attached to the Torpedo School at Halifax before being sold in 1947 for scrapping at Sydney, N.S.



HMCS Qu'Appelle (wikimedia commons)



What to get for the Naval Enthusiast that has Everything?

Everyone's been ther; Christmas is approaching and shopping is an ever-present stress. This year the government of Brazil is there to help you get the naval enthusiast in your life that perfect present, a 33,000-ton aircraft carrier. Indeed, this may be a once in a lifetime opportunity to impress your friends and colleagues, be the first in your social circle to own the ultimate instrument of state power projection and sea control!

Last Fall, Brazil's Ministry of Defense announced that its only carrier, *Sao Paulo*, will be going up for auction at the bargain price of only \$1.275 million dollars – roughly the cost of a lower-middle class home in Vancouver. This is a tenth of what the Brazilians paid when acquiring the Clemenceau-class capital ship from France nearly two decades ago. The vessel is a bit worse for wear; it was launched in 1963 and, once sold to Brazil, rapidly made its mark as a money pit. The South American nation has sunk over

\$100 million into maintaining and repairing *Sao Paulo* after a series of deadly accidents and fires. While officially decommissioned in 2017, the carrier had already been out of service for a decade. And by 2017 it was officially the oldest commissioned aircraft carrier in the world.

But now with a bit of TLC it's ready for a new home. The Brazilians officially put the carrier up for sale on Sept. 23, 2019, meaning that the right, motivated buyer can join the elite club of aircraft carrier owners, complete with a steam catapult launch and barrier assisted recovery flattop. The smart buyer knows to bundle their purchase with a carrier air-wing, and this might soon be on offer, given that the sale or *Sao Paulo* leaves Brazil with a collection of compatible Skyhawk fighters tailored to carrier operations, now seeming devoid of purpose.

It's an opportunity that won't come around again soon. Just remember to get the extended warranty ...



Canadian Leaders at Sea in the Arctic

By Capitaine de frégate / Commander Michael Eelhart CD

Commandant, NMCS Ville de Québec FFH 332

Royal Canadian Navy / Marine royale canadienne

Canadian Leaders at Sea join HMCS Ville de Québec for Operation Nanook and discover what life is like at sea.

In August 2019, HMCS *Ville de Québec* embarked on a mission on behalf of the Royal Canadian Navy (RCN) to test the new fueling facility in Nanisivik, Nunavut. This critical piece of infrastructure will enable naval ships to operate and patrol longer in the

Canadian Arctic. Now this was the mission, but our enduring task during the long transit was to embark a group of 'Canadian Leaders at Sea.'

Nanisivik is a deep water pier located in the Central Arctic near the hamlet of Arctic Bay, NU. It is located near the Northwest Passage and provides a safe location to deliver logistical support to naval ships operating in the Arctic. The project is nearing completion and *Ville de Québec's* mission was to test the facility. Although naval ships have very large ranges (distances they can travel without re-fueling), the distances in the Arctic are vast. For comparison, the distance from

Halifax, N.S. to Nanisivik (as the crow flies) is about 2,000 nautical miles [nm] (actual distance to travel by sea is about 3,000 nm) and Halifax to Victoria, B.C. (as the crow flies) is 2,500nm. As a result, having a logistical hub in the center of the Arctic will greatly enhance naval operations, and testing that facility was critically important to the project.

As noted above, in addition to *Ville de Québec's* primary mission to test the refueling station at Nanisivik Naval Facility, the ship was also tasked to concurrently conduct five serials of the RCN's Canadian Leaders at Sea (CLaS) program during our

Arctic deployment from August 2 to 28, 2019.

The CLaS program is a new effort aimed at proactively engaging with Canadian leaders and stakeholders to tell the RCN story, invigorate the RCN brand, and showcase the RCN to Canadians. These 'leaders' – which can include business people, politicians, academics, and thought leaders – live amongst and interact with the RCN's greatest ambassadors, its sailors, to gain a deeper understanding of their mission in service to Canada.



They gain a perspective of what life is like at sea and understand the training that each sailor receives in addition to their actual job, seeing first-hand the complexity of each evolution and understanding how each sub-team interacts with others and as a whole ship's company to produce an operational warship. The RCN CLaS program has become so successful over the years, and the bonds created by the participants so strong, that CLaS alumni, called CLaSmates, are now holding reunion events in various cities across Canada at their own initiative.

This last summer, *Ville de Québec* conducted five serials in support of the RCN Arctic CLaS program

with 45 people over 26 days, broken up by the various legs of the journey to the Far North. Groups joined us in St John's, NL, Nuuk, Greenland, and Pond Inlet (twice) and in Iqaluit, NU. Each group's experience varied based on the location and time frame, but everyone saw numerous and spectacular icebergs. Unique experiences, dependent on the leg participants traveled, included transiting through ice fields in a non-ice breaking vessel, polar bear sightings, northern lights, numerous whales, 24 hours of light, cultural events ashore, transiting to 77 degrees north, "crossing the line" ceremony, a lecture, a guided tour of the Danish Joint Arctic Command in Greenland, and seeing the majestic splendor of the Eastern Arctic.



To provide a true and honest experience, I encouraged the CLaSmates to interact with my crew and I gave them unfettered (but safe) access to the entire ship. I am of the opinion that an honest exposure, warts, rust, and all leads to the best understanding of how we live and operate at sea. A program is created to maximize CLaSmate exposure to normal activities at sea and those events are great but the informal interactions make the connections real. My biggest asset is the enthusiasm of the crew in their interactions with the CLaSmates. Our men and women love what they do and want to share that experience with those that are interested in hearing about it. The majority of my crew had never been to the Arctic, and a large number had never been to sea before, and watching the crew and CLaSmates experience the vastness of the Arctic region together was magical.

The success of each serial (and they were all successful, and if asked, each serial was the "best") depended less on what the group was exposed to and their unique experience, but more with how well the CLaSmates bonded and interacted with the crew. Also, not having bad weather and associated seasickness helped. I challenged the CLaSmates when they first joined to ask the hard questions on why things are the way they are or why we do things a certain way. Each CLaSmate is accomplished in their own field and their perspective has value. I liked to distill this perspective in the final night after we have had a "spiffy dins" (a fancy dinner at sea. My cooks and stewards like to show-off and no one lost weight) during a "fireside chat." I found the direction of the discussion, themes, and feedback fascinating and informative. Overall, everyone had a wonderful and inspiring experience.

In whole, the RCN Arctic CLaS program was a busy task, on top of the main mission, but it allowed Canadians a real and positive experience with their Navy and we gained lifelong friends.

To learn more about the Royal Canadian Navy *Canadian Leaders at Sea* program or the Royal Canadian Navy *Canadian Leaders Alongside* program, contact:

- Lieutenant-Commander Kray Robichaud (Atlantic | Arctic Canada)
 Kray.Robichaud@forces.gc.ca;
- Lieutenant-Commander Robert Tucker (Central | Eastern Canada)
 Robert.Tucker2@forces.gc.ca; or
- Lieutenant-Commander Melissa Fudge (Western Canada)
 Melissa.Fudge@forces.gc.ca.



NATIONAL SHIPBUILDING STRATEGY

The NSS gest a Third Shipyard

This December the Government of Canada announced the addition of Chantier Davie as the third pre-qualified strategic partner under the National Shipbuilding Strategy. Davie, which had been omitted from the initial NSS qualifications undertaken by the Harper government, is now ready to move on in an effort to win contracts to build six icebreakers for the Canadian Coast Guard. This will be the Request for Proposal and evaluation stage, including a third-party assessment of the shipyard's infrastructure, submission of a formal proposal, and a due diligence process to ensure the shipyard is financially capable of performing the work and making any necessary upgrades to its infrastructure.

James Davies, President and CEO of Davie Shipbuilding told reporters that "this will be the single largest shipbuilding program in Quebec since World War II and will ensure the continuity of employment at Davie as well as the development of Quebec's maritime cluster … We now look forward to getting the over 1000 workers who were laid off in 2017 back to work as soon as possible."

Notes

1. Canadian Defence Review, "Davie Joins National Shipbuilding Strategy" (December 19, 2020).

Keel-Laying Ceremonial held for HMCS Protecteur

The ceremonial keel-laying for the future HMCS *Protecteur* took place at he Seaspan shipyards this January. The first of the navy's two new joint support ships (JSS), *Protecteur* will be the largest naval vessel ever built in Canada. A multi-mission replenishment vessel, the ship will replace the now decommissioned Protecteur-class and allow Canadian warships to deploy globally with increased flexibility. Providing fuel, ammunition, aviation support, food, spare parts, exercise and gym facilities, and medical and dental care the new JSS will confirm the RCN's blue-water status.

The keel laying event is a significant milestone in a ship's construction, during which a newly minted coin is placed near the keel where it will remain for the duration of the ship's life. The coin is said to bring good luck for the builders and all those who sail in the vessel.

HMCS Harry DeWolf Undergoes Builder's Trials

Canada's first Arctic Offshore and Patrol Ship (AOPS), HMCS *Harry DeWolf*, departed Halifax Shipyard on November 22 2019 to start initial builder's sea trails: testing its anchor handling, integrated bridge and navigation system (IBNS), fin stabilizers, Multi-Role Rescue Boat (MRRB) launch and recovery, and communication systems. By all indications the tests were a success and the ship will move on to formal sea trials, followed by its acceptance and eventual commissioning by the Royal Canadian Navy, sometime in the first quarter of 2020.

There are currently four AOPS under construction at Halifax Shipyard, including the future HMCS *Harry DeWolf*. The future HMCS *Margaret Brooke* was launched on November 10, 2019 and is currently pier side where work continues to prepare the ship for sea trials and handover to the Royal Canadian Navy late next year. At 103 metres and 6,615 tonnes, the AOPS will bethe largest Royal Canadian Navy ship built in Canada in 50 years and all signs point to it joining the fleet in the very near future.





RED TEAM

GLOBAL DEVELOPMENTS FROM COMPETITORS &

Iran's Mosquito Fleet

In the wake of the American assassination of Iranian general Qasem Soleimani and the subsequent Iranian missile attack on US forces in Iraq tensions in the Persian Gulf are nearing an all time high. Cognisant of the ever-present danger of a confrontation with the United States, Iran continues to build a maritime force customized for hybrid littoral warfare. Against the US Navy's large surface combatants, Iran has prepared a swarming fleet of speedboats and light craft, designed to overwhelm conventional naval defences and turn naval warfare into something radically different.

Iran fields two navies under separate chains of command; the regular navy operates conventional warships: corvettes, frigates, and missile boats, as well over two-dozen submarines. as Revolutionary Guard Corps – which was commanded by Soleimani – has its own force of roughly 1,500 fast boats designed for rapid swarming attacks in the shallow littoral waters of the Persian Gulf. Effectively answerable to religious hardliners rather than the head-of-state, the Revolutionary Guard has been involved in more provocative diplomatic incidents, such as the seizure of a U.S. Navy fast assault boat in

January 2016. The Guard also possesses hundreds of fast-in-short boats fitted with unguided rocket launchers, rocket-propelled grenades, anti-tank missiles, and recoilless rifles. Other popular platforms include Swedish Boghammar motorboats and rigid-hull Zodiac inflatable rubber dinghies.²

Expanding this small fleet, Iran is building specialized military speed boats with more impressive capabilities. Designs have been imported from Britain and new indigenous systems are being added to the mosquito fleet. These new ships have caused some concerns based on their speed and potential armament. Travelling at 70 knots, a small, mass produced craft firing light cruise missiles could leak through even the most effective defensive perimeter. These boats, with their low radar signatures, could theoretically come into range of a larger surface vessel or even exhaust a defending ship's limited supply of defensive missiles. These ships would take heavy casualties, but Iran's defence posture appears to accept that as a reasonable price for inflicting damage on more expensive American warships.

US wargames in 2002, dubbed Millennium Challenge, brought this fact home in dramatic fashion. Then, Marine General Paul Van Riper, leading an Iran-like Red Team decimated a USN amphibious force with a huge anti-ship cruise missile barrage and a swarming attack by fast boats. His attack 'sank' sixteen ships and killed 20,000 Blue

Team personnel.² A future naval fight with Iran would likely be a similar asymmetric challenge and the USN's skills in swatting mosquitoes may make all the difference.

Notes

1. Sebastian Roblin, "How Iran's Rag-Tag Navy Is Actually a Big Problem." National Interest (November 2019).

2. Ibid.

Russian Navy Deploying Hypersonic Weapons to Pacific

In March 2018 Russian President Vladimir Putin made headlines unveiling his armed forces new hypersonic weapons capabilities. These missiles, capable of travelling above Mach-5 offer faster strike and better evasion capabilities, threatening to change the dynamic of naval warfare. How advanced and functional these weapons are remains hotly disputed, however it appears as though Russia is making good progress operationalizing them. In October 2019, Moscow announced the arming of its Navy's latest warship, *Gremyashchiy*, with the Zircon hypersonic anti-ship cruise missiles. The warship will be launched later this year and join the Pacific fleet.

The 3M22 Zircon missile can travel at around seven times the speed of sound to hit targets approximately 250 miles away. According to Russian sources it has a maximum range of 650 miles. It can fly at low-altitude, or semi-ballistic trajectories. And it apparently incorporates evasive maneuvers into the flight profile. Because of its speed, the Zircon's is seen as a clear threat to Western warships, whose missile defences are largely based around interceptors designed for slower moving targets. Even the U.S. Navy's Aegis air defense system may prove insufficient in tracking and engaging.¹

In response, the US is rushing to develop its own hypersonic technologies and to renovate its defenses, perhaps even moving away from missile interceptors as its principal shield. The fact that the new Ford-class supercarriers boasts 250% the power

generation capacity of the previous Nimitz-class is telling. That excess capacity clearly has future directed energy systems in mind and those may soon become the norm.

Notes

1. H.I. Sutton, "Russian Navy to Deploy New Zircon Hypersonic Missile To Pacific," *Forbes* (November 5, 2029)



BLUE TEAM

GLOBAL DEVELOPMENTS FROM ALLIES & PARTNERS

South Korea 's Talking about SSNs

Facing an increasingly aggressive North Korea and a rapidly expanding Chinese navy, the Republic of Korea is considering adding nuclear attack submarines to its fleet – potentially becoming only the seventh country to deploy SSNs.

In a report submitted to Parliament last October the South Korean navy announced a task force, headed by a commander-level official, to consider the acquisition of SSNs. While a discussion of procuring nuclear submarines first appeared in 2003, Seoul seemed to have dropped the project in 2004 following its disclosure in the media. It made an unofficial return in 2017 however, as the defence ministry started to contract research to outside analysts. For now, the project appears to be just in the conceptual stage. "Operating the task force does not mean that

the Navy is pushing for related projects in earnest, as nothing has been decided," said a navy officer. "It is mainly collecting information regarding the matter."

There are few industrial technological barriers between the Koreans and nuclear power. The country already has a conventional submarine program based largely on German technology. It launched the first of nine 3,700-ton KSS-III submarines in 2018, the first domestically designed boat and the first conventional submarine feature vertical launch tubes cruise missiles. In theory, it could also outfit its 3,000-ton Chang Bo Go-III submarine with a reactor. For larger hull options, South Korea is also reported to be considering a 5,000-tonne SSN based on the French Barracuda Class, a design which serves as the basis for Australia's new Attack Class vessels.

The technology is there but the rationale for a South Korean SSN is hard to divine. The North Korean navy is in close proximity and the range and endurance advantages offered by nuclear power would seem unnecessary. South Korean Chief Admiral Sim Seung-Seob noted that SSNs would be "most effective in finding and destroying North Korean submarines equipped with submarine-launched ballistic missiles" — an increasing concern as the North Koreans experiment with sea-launched ballistic missiles.²

A North Korean second strike capability would be a serious concern and Seoul might be preparing for it.

Notes

- 1. Michael Peck, "South Korea Might Build Nuclear Submarines," *National Interest* (October 25, 2019)
- 2. Navy Recognition, "South Korea Navy to Acquire two Nuclear Power Submarines," (October 14, 2019)





The USN is rebuilding its maritime strike capability

In the wake of the West's Cold War victory, the need for sea control largely disappeared. Western navies ruled the waves and the US Navy repurposed itself as a force for projecting power ashore — a task aptly summed up by the title of the USN's 1994 strategy *From the Sea*. In recent years, the new dynamic of great power completion and challenges from near-peer competitors has made it clear that Western navies can no longer be content to project power from the seas but must now be prepared to fight for the seas.

One of the casualties of post-Cold War dominance was the atrophying of the USN's anti-ship warfare capabilities. Today, many of the forces' surface combatants have limited capabilities in this regard. Anti-ship missile systems were not prioritized in the decades spent fighting terrorism and the result was that both Chinese and Russian systems have caught up and even surpassed US capabilities.

Recent tests show a US Navy dedicated to regaining that advantage and preserving its ability to fight surface ships in a contested environment. This December the USN announced early operational

capability of the new AGM-158C Long-Range Anti-Ship Missile (LRASM), an air and ship launched cruise missile with a 1,000-pound penetrating warhead and a range of 500 nautical miles. Developed by the Defense Advanced Research Projects Agency (DARPA) as a replacement for the AGM-88 Harpoon, the LRASM comes with a unique sensor and targeting system designed to home in on individual targets — or parts of a specific target — in even the most contested environments.

Many anti-ship missiles, such as those being pioneered by Russian, rely on supersonic speeds to penetrate defences. The trade off in this is shorter range and a larger weapon. LRASM takes a different approach. Its turbojet engine provides the extra reach at the cost of speed but also allows a wave hugging approach that minimizes enemy response times.

In practice, the extra reach by weapons like LRASM (as well as the new Navy Strike Missile and Harpoon Block II+) provide surface ships with the strike range to make them relevant in a fight with a near-peer adversary with the ability to deny easy access to the littorals and near seas. As Western navies deal with the potential of operating in increasingly restricted sea space, that longer reach may one day prove essential.

THE NAVY GOES FISHING FOR RECRUITS

In the face of persistent staffing shortages, the RCN makes a renewed effort to advertise the fleet and bring in the people it needs

By Chris Yurris

The Royal Canadian Navy has struggled in recruitment in recent years. As recently as February 2019, Commodore Steve Waddell, head of Naval Strategic Readiness, indicated that sailor shortages have caused persistent difficulties for the operation of ships. Currently, the RCN is 10% short of its goal of a force of 8,000 sailors. Moreover, in several positions the shortage is up to 40%, with sailors unavailable due to training, medical leave or other reasons. These recruitment concerns are not isolated to the RCN, with the Air Force facing similar constraints. Waddell even goes so far as to assert that the Trudeau Government's Defense Policy, *Strong, Secure, Engaged*, is at risk due to these shortages.²

There have been several explanations for the persistent recruitment issues plaguing the Canadian Forces. Lack of diversity has been a prevalent concern throughout the military, including difficulties recruiting women and visible minorities. In 2016, an anonymous source asserted that Canada's military is built on a two-tiered system: "one tier for white men and the other for women and visible minorities." Some critics have also argued that the CAF is out of touch when it comes to recruiting women; critics have stated that this was evidenced by an online advertisement in early 2019, which featured a woman asking whether she could wear makeup in uniform. Chief of the Defence Staff Gen. Jon Vance recognized



the inappropriate nature of the ad, and quickly went to twitter to apologize.

The RCN has enacted several initiatives to address recruiting concerns, including recruitment oriented deployments. One of the best examples was the recent Great Lakes Deployment from October 23rd to November 13th, 2019. The 2019 Great Lakes deployment was a way to reach out to communities that normally wouldn't see Canadian warships, and which might not consider the Navy as an obvious career path.

This deployment involved HMCS *St. John's* visiting communities along the St. Lawrence Seaway and throughout the Great Lakes, with several activities in each port visited. The RCN's webpage

covering the deployment includes video from testimonials various service members. along with links to more in-depth career descriptions, information on pay and benefits, and the online application portal. The recruitment focused on operator trades, such as sonar operator, naval communicators and radar plotters. The 2019

deployment also marked the first time *St. John's* had docked in Kingston since 2012. In an interview with CBC News regarding the ship's visit, Commander Peter Sproule talked about the unique life of a sailor, with no two days being exactly alike; moreover, Sproule remarked on the diverse backgrounds of sailors, as "the Navy is open to everyone — from high school graduates to people with life experience."⁴

When docked in Toronto, *St. John*'s was visited by Sharon John, the mother of Ordinary Seaman Anthony John and Ordinary Seaman Brandon John, 21-year-old twin brothers. Anthony acknowledged the respect the pair received from other crew-members aboard the vessel stating: "We are the lowest-ranked guys on the ship but we are treated with such respect ... most of the people on the ship were ordinary

seaman so they know what it's like." Sharon John recognized that despite being proud of her sons, she does miss them at times: "I am excited for them but I do miss them," stating "there is nothing bigger than serving your country."⁵

St. John's has also been used to inform university students on the Navy's activities and maritime security. On February 26, 2019, students from St. Francis Xavier University in Antigonish, Nova Scotia, and Dalhousie University in Halifax spent the day aboard the vessel on a day-sail. At Canadian Forces Base Halifax groups were given a tour of diesel-electric attack submarine HMCS Windsor, the coastal defence ship HMCS Glace Bay and the patrol frigate HMCS Halifax. The tour of the Halifax was given by StFX alumni, Lieutenant (N) Peter Bigelow,

who discussed life at sea, while displaying some of the vessel's facilities, including the operations centre and the bridge.

Additionally, through the Canadian Leaders at Sea (CLaS) program, female leaders from business, industry, and sport have been given the opportunity to experience life aboard RCN vessels. On March

8, 2019, as part of International Women's Day, the RCN welcomed a group of 20 women from across the country to spend a day and night aboard *St. John's*. Similarly, in 2018, HMCS *Winnipeg* welcomed 12 influential Canadian women aboard on a sail from Esquimalt, B.C., to San Francisco, California. Marilyn Loewen Mauritz, Interim President and CEO of Central 1 Credit Union, was among those who participated in the program, stating:

"I learned a lot about leadership ... the navy is all about leadership, mentorship and ownership. These are themes you could apply to any job or experience that you are doing, so I'm taking that back home. I'll also be thinking about all the people who are spending their time on this ship, away from their families. They want to be part of this team on this



ship. I think that's pretty amazing when you can get everyone on that team going in the same direction."

In a similar venture, HMCS *Oriole* deployed to the Great Lakes region in July and August 2019. *Oriole*'s deployment included a visit to Kingston, Ontario where several events were held, including guided tours for the local Sea Cadets. *Oriole* was also open to public tours in Kingston, attracting thousands of visitors. On August 9th, 2019, *Oriole* was in Milton, Ontario, with an event hosting the descendants of George H. Gooderham, the vessel's builder. Moreover, in June 2019, the small ship was docked in Summerside, PEI, giving residents the opportunity to

visit the vessel, which is the Navy's oldest ship, having been built in 1921 and commissioned in 1952.

In a further effort to make the Forces more inclusive and attractive to potential recruits, the Canadian Armed Forces unveiled new policies regarding for tattoos service-members. The new allows policy service-members to display tattoos more openly, while prohibiting tattoos still displaying nudity, connections to criminal activity, or the promotion of hatred, harassment or

violence as outlined in the *Canadian Human Rights Act*. Likewise, the new policy prohibits tattoos on the face and scalp; nevertheless, cultural and religious exemptions are available. Chief Warrant Officer Guimond asserted that the policy changes are a consequence of changing views of body art in Canadian society: "Tattoos are more and more mainstream in Canada and that's what this policy update is all about. Greater control over your personal appearance is good for the morale of our people and it helps us attract future members to our team."⁷

The change in guidelines has resulted in an influx of new business for tattoo shops situated near

Canadian Forces Bases, with both military personnel and civilians seeking new ink; with many of the civilians looking into joining the armed forces. Jim Carter, who owns a tattoo shops in Southern Vancouver Island has recognized this increased business, with his shop located near Canadian Forces Base Esquimalt. Consequently, Carter offers military discounts as a thank you for their service; moreover, Carter has noticed that nautical themes are common for Armed Forces members visiting his shop.

The CAF's tattoo policy is similar to one introduced by the United States Navy in 2016, which permits tattoos on all but the face, while also



prohibiting discriminatory or potentially obscene designs. The easing of tattoo restrictions by the US Navy was also influenced by recruiting, with body art popular amongst millennials, with approximately 1 in 3 of that generation sporting at least one tattoo.⁸

In 2017, the RCN was also looking to ease the enrolment process for joining the naval reserves through the "Expedited Reserve Enrollment" process. The new enrollment process was a result of a direction given by the Chief of the Defence Staff to strengthen the Primary Reserve. Improved recruitment coordination in consort with efficient use of recruit processing resources, aimed to reduce the

time to process an applicant's file to three visits in as little as 21 days. The expedited reserve process was officially launched on February 1, 2017. The new process includes an "initial contact" between the Naval Reserve recruiter and the applicant; this stage follows the initial online application, and includes the collection of various documents, including a medical questionnaire and reliability screening. Subsequently, the first visit includes the FORCE fitness test. The second visit consists of the Canadian Forces Aptitude Test (CFAT) and an interview is conducted with the Military Career Counsellor. Lastly, in the third visit "all steps of the file processing are completed and final documentation is administered which readies the file for enrollment."9 An enrollment ceremony is conducted, and the recruit subsequently begins basic training.

Furthermore, in an effort to increase enrollment, in June 2019 the Canadian government announced an increase in pay for CAF reservists. The new pay structure sees pay for a first-year corporal increasing from \$140 a day to \$152. The federal Minister of Employment, Workforce Development and Labour Patty Hajdu, who announced the move, hopes this change will assist in recruitment, stating that "we know that we want to attract more units [sic] to the reserve units across the country." The official press release, on June 14, 2019, asserts that the changes are meant to "to align [reservist pay] with Regular Force pay where the demands of service are similar."11 The changes in pay are on aspect of the vision set out in the federal government's defence policy, Strong, Secure, Engaged, "which also includes increasing Reserve Force by 1,500 members and further integrating reservists into operations."12

How successful these measures will be remains to be seen as the Navy continues to face serious pressures to its human resources. Still, the process of adapting the force to 21st century recruiting, spreading with word, and advertising the RCN to Canadians as broadly as possible has been stepped up. Time will tell if it's enough.

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HMCS Kingston off the coast of West Africa during Operation PROJECTION (Sgt Shilo Adamson, Combat Cam)

TRAFALGAR: KEEPING IT STRAIGHT

By Fraser McKee

At the 1805 battle the Spanish fought entirely in their own ships, many, in fact, built in Cuba, including the largest in that battle, the massive 130-gun *Santissima Trinidad* – the Rear Squadron flagship of RADML Cisternos. Not so the British and French, who had a muddle of their own and captured ships, even four of identical names.

The British line included HMS *Belleisle* (CAPT William Hargood), captured in 1795 from the French and re-named as she had been their *Formidable* and there was already a ship of that name in the RN. HMS *Spartiate* (CAPT Sir Francis Laforey), captured in 1798 at the battle of the Nile. HMS *Tonnant* (CAPT Charles Tyler), also captured at the Nile; and the small cutter, not in the line-of-battle, HMS *Entreprenante* (LT Robert B. Young) which had been captured about 1799. The newest ship in the British line was HMS *Revenge* (CAPT Robert Moorsom),

only commissioned earlier in 1805; the oldest, at over 42 years, was HMS *Defence* (CAPT George Hope), built in 1763. (Things haven't changed that much in 200+ years.)

In the same vein, in the French line were the *Berwick* (CAPT J-G Filhol-Camas), captured in 1795; recaptured Trafalgar but wrecked ashore that night. Swiftsure, C-E l'Hospitalier-CAPT Villemandrin captured 1801; recaptured at Trafalgar and taken back into the RN as **HMS** Irresistible. This re-naming was necessary because there already was an RN Swiftsure, which also fought at Trafalgar in the British line.

Apart from the double Swiftsure, there were other duplicates or near-duplicates: the British *Achilles* (also appearing in some lists as *Achille!*) and the French *Achille*. The French and the British also each had a *Neptune* and the Spanish a *Neptuno*. The French had an *Argonaute* and the Spanish the *Argonauta*.

Apart from the confusion of the smoke of battle that day, it is not surprising that historians on occasion have problems keeping the story straight.

Just as an added note, apart from his famous 'ENGLAND EXPECTS ...' flag signal, Nelson had two others made. Firstly, anticipating a storm that night, Victory made 'ANCHOR AT CLOSE OF DAY' and half an hour later, typically, 'CLOSE ACTION.'

Just to keep the record straight.



Genius

A tribute to James Carruthers

By Richard Archer | NAC Ottawa Branch

For *Starshell* I have been putting together some accounts of the contributions of certain standout Ottawa branch members. The first account in a recent edition was about member Fred Herrndorf. This is the second in a series, based largely on my own memories and on my own opinions.

It is my privilege to have a genius as an RMC classmate, as a fellow member of NAC-Ottawa, and as a friend. I don't use the term genius lightly. He is Captain(N) (Ret'd) James Carruthers, PhD., P.Eng., RCN. History tells us that there are many degrees of recognized human genius, but they all have one thing in common: geniuses precipitate a radical change in perspective. These changes may be limited to their own field or work or extend beyond to impact a wide group. Jim Carruthers brough about this shift in perspective, changing the way the Canadian Navy – and forces beyond – thought about combat systems integration and the very process of fighting a modern warship. How he accomplished this is worth noting and remembering.

Jim should never have been accepted into the Navy – due to failing French he hadn't yet graduated from high school, and he was designated a "two-percenter", someone who didn't meet the medical requirements for eyesight. But he did so well on IQ and similar tests he was sent off to Royal Roads.

After Jim graduated from RMC in 1965 with an electrical engineering degree, the Navy didn't seem to know what to do with this young, electronics-astute junior officer. Because the Navy hadn't yet invented the classification of Combat Systems Engineer, he initially spent his first years without a real posting. Even though he was nominally posted to NDHQ he spent most of his time on board HMCS *Terra Nova*, then in the process of its conversion to the Improved Restigouche class. He led the design and implementation of new systems like ASROC and the

SQS 505 hull-mounted and variable-depth sonars, and perhaps most importantly, the development of the first digital computer system to go to sea in the RCN.

At this time he made his first observations as to how the various shipboard departments operated in virtual silos — between operations and weapons officers, operators and maintainers, and even between systems like the bridge, action information, ASW, gunnery and electronic warfare. Industry involved in naval combat systems also operated in similar silos, as they worked to protect market share. He realized that in those days all navies operated under this weakness.

The Canadian Navy was smart enough to use his evident expertise in electronics to good effect in a number of tasks. Although the Navy had no formal training for him except for some ad hoc stints at USN schools, he was actually a (or perhaps the) prototype for what would eventually be called the Combat Systems Engineer.

In the early 1970s, Jim decided to upgrade his qualifications. He was accepted by Nova Scotia Tech for a combined Masters and PhD in electrical engineering, which as the school acknowledged, he completed in record time. He was assigned as design authority for the Automated Data Link Information System (ADLIPS), a system added to the operations rooms of the older steamers so they could communicate and share information tactically with the newer ships like the DDH 280 class, which were then coming into service, along with our USN allies. This led inevitably to him becoming the lead for the naval technical staff's longer range plan for moving beyond the 280 combat systems.

In those days, all navies had similar approaches to combat system design — build the necessary information and control capability around a single large computer with separate, dedicated control consoles for elements such as gunnery, missiles and electronic warfare. Other extant examples were the USN's Naval Tactical Data System (NTDS — which had some significant Canadian gestation) and the RN's Action Data Automated Weapons System (ADAWS). In NDHQ, the new plan to go beyond such approaches was called Shipboard Action Information System (SAILS). The idea was to use

emerging digital data handling techniques to be able to share information and control equipment more efficiently, with more damage resistance and more flexibility. There was no stated operational requirement other than a call to "update" CCS 280, but if feasible, it was to be retro-fitted into the 280s and to be the system installed in the Canadian Patrol Frigate, a project that would come to fruition in the mid-1980s. The job was given to Jim, and he set to work. He soon realized that with SAILS, there was no intent to go beyond the then-current approach – each component would still be stand-alone with its own computer and display.

To re-use a phrase, Jim turned the world of shipboard system design on its ear. In a radical departure from his assigned brief and acting alone, instead of a single large centralized processor he developed a concept whereby all data processing would be distributed; that is, each component would have its own one or more smaller processors that would not only do the work required, but also facilitate the sharing of information and control amongst all users and the command. The crucial contributor would be a redundant "time division multiple access " data bus laid throughout the ship for all systems to link with, each via a separate bus computer, with this bus being the means to share and manipulate the information and control. The data bus refined the way that "packets" of data and instructions were shared amongst all possible users. An important consequence is that ship designers could do away with tons and kilometers of wiring between systems. But most importantly, the concept eliminated all the silos.

Around this time, I was leading an NDHQ delegation to a special working group of the NATO Naval Armaments Group at NATO HQ in Brussels. I was chatting with a Royal Navy delegate, and he said he'd just returned from a visit to Ottawa, where he had been given a tour of Jim's concept demonstration set-up, where among other capabilities the data from multiple sources could be displayed on the same screen. Now, I had heard stories of what was going on in Jim's lab, and so I said, "I hear that he's years ahead of anyone else." "No," said the Brit, "not years. Decades."

The new concept was renamed Shipboard Integrated Processing and Display System, or SHINPADS for short. Note that the name does not refer solely to a ship's combat system. It was clearly a concept that applied to all shipboard data systems, including marine engineering and even administration.

Jim tells the story that he was having trouble convincing authorities that it could be done, and getting funding to build on the success to date, and at that time he travelled to the US to brief the USN on what was being accomplished. Apparently, the chair of that briefing, the Assistant Secretary of the Navy Research and Development, subsequently for telephoned his counterpart in NDHQ, and said something like, "If you don't fully fund this work, we will...and then take it over!" Jim got his Canadian funding. In due course his concept found its way into the 280s and the CPF. It changed forever the way that approached designers combat system exploited the latest cyber requirements and technologies. The SHINPADS methodology was also adopted amongst other NATO navies, and it became the more-or-less world standard.

But Jim's genius and his propensity for initiating radical change hasn't ended there. In the 1980s as a naval captain he retired from the Navy, and took up an engineering position with a mid-size electronics design company in the Ottawa suburbs called Norpak The company specialized in the Corporation. standards and techniques for embedding digital data in the typical North American television analog transmissions. This allowed capabilities like close captioning and the V-Chip. For television, Norpak also pioneered Videotex and Teletext. It wasn't long before the company began to exploit a new technology called the Internet. In quick time Jim was made a Vice-President and then the Chief Executive Officer of the company, a position he held for 25 years.

But where did any radical change enter this picture? Well, when Jim arrived at Norpak it was going through some major problems with management and cash flow. In time it was facing bankruptcy. What he did as CEO was to convince the shareholders that the survival of Norpak could be achieved with a lot fewer people. He initiated a

program that eventually reduced the work force to about ten percent of the original, which significantly increased overall productivity. He also reduced the product line to focus on profit-makers. The commercial success blossomed...and he made the shareholders a ton of money.

At the same time he became engaged in the machinations of the Royal Military College. Not surprisingly he had a vision for the college – to make it into a world-recognized centre of research and education in the field of leadership. To this end he joined the board of the RMC Foundation so as to make his case for this vision, but on this occasion it was to no avail. Even so, he put his own money where his mouth was, and along with classmate and fellow PhD Keith Ambachtsheer, he launched a Class of '65 fund to support an RMC professorship in leadership, which is still ongoing. Secondly, an annual award was endowed to recognize overall teaching excellence by an individual RMC professor. Many other Class of '65 members also contributed, and continue to do so, and at one time the accumulated capital was the largest of any of the class-supported funds.

And speaking of RMC, Jim is famous for supporting individual cadets. He started with financially supporting cadet candidates from his hometown of Drumheller, AB, and now actively supports the involvement of all cadets in a wide range of activities. His latest initiative? He is arguing for the greater exposure of nominally naval cadets to all things RCN, so that they don't show up as a brand-new sub-lieutenant in a ship without ever seeing one before. To facilitate the naval education of RCN cadets, he arranged for them to be members of the Ottawa Branch of the Naval Association of Canada (NAC), and included them in a periodic Internet newsletter originally intended for the edification of all NAC members. This newsletter builds upon his own persona as an information-guru, and distributes navy-related intelligence from around the world. He has now passed on the reins of the newsletter to someone else but it is still going strong and even growing.

And speaking of NAC, Jim saw the need for a new organization in Canada to be a medium for debate on

naval issues, and to be the go-to source for media and academia for expert opinion on the way ahead for Canada as a burgeoning maritime nation. The model would be the US Naval Institute. His first moves were to try to amalgamate the then-Naval Officers Association of Canada (NOAC) with the maritime affairs arm of the Navy League of Canada (NLOC), along with some other like-minded organizations. But for its own reasons the NLOC demurred. So Jim turned his sights on the NOAC. He joined the Board of the Ottawa Branch, and in due course was elected Branch President. He campaigned for the branch to throw off its old ways of thinking about itself, and to take steps to re-make itself less as a vehicle for old salts to enjoy some camaraderie, and more of an advocate for the Navy.

But the branch did not have enough power to make such changes, and so Jim set himself up to be elected to the presidency of the national NOAC. Here he had some real potency to make changes. The first thing to do was to drop the "O" from NOAC and open up the association to anyone with an interest in things maritime in general and the aspirations of the RCN in particular. Next he worked on gaining the necessary funding, and first expanded the annual general meeting into an opportunity for serious conferences, with fees for attending, on the naval issues of the day.

A second initiative was to launch an annual Battle of the Atlantic Gala, held at the National War Museum in Ottawa and attended by politicians and other senior authorities. Along with the naval conferences, and as well as properly commemorating the success of naval and merchant marine veterans, these initiatives made some significant profits that could be turned to education in the need for a capable and efficient RCN. This education is being applied to both the people of influence and to the general public.

He has now turned over the reins of the presidency to his successors, but the legacy of Jim's brilliance, vision and enterprise for radically changing people's perspective – his genius – continues in today's Naval Association of Canada.

Postscript

After my first draft of this account of the genius of

Jim Carruthers, I returned to the book I was reading, I had almost finished it. It is by the Israeli historian/futurist/philosopher Yuval Noah Harari. The book is called Homo Deus: A Brief History of Tomorrow. [Signal (McClellan & Stewart), 2017] It is one of a series of three Harari books, the others that I have read being called, Sapiens: A Brief History of Humankind, and finally, 21 Lessons for the 21st Century. They are full of entertaining insight and enlightenment – highly recommended.

In the last chapter of Home Deus, Harari describes the present-day "religion" of data – how advocates ("Dataists") are arguing for the complete freedom and unconstrained sharing of all forms of data and information as a way for humankind to shake of its current restrictions and move into a new, better future (bear with me).

Such Dataists explain history in terms of data-processing algorithms and systems. For example, the battle between liberal capitalist democracy and communism wasn't won by democracy because it is morally superior. It won because it follows a superior data-processing concept. While in communism all information flows to a central authority, say in Moscow, where all economic and political decisions are made, on the other hand under capitalism the information control and decision-making are entirely distributed - amongst individual enterprises and the free market. Hence, in a data-processing context capitalism is much more efficient...and thus prevailed in the Cold War.

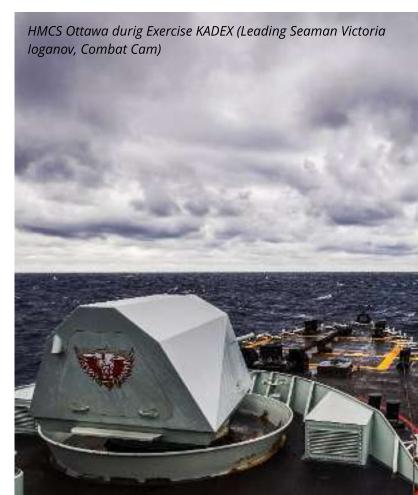
Under the rubric "History in a Nutshell" Harari goes on to apply this concept to all human history from the cognitive revolution onwards, and I quote:

From a Dataist perspective, we may interpret the entire human species as a single data-processing system, with individual humans serving as its chips. If so, we can also understand the whole of history as a process of improving the efficiency of this system through four basic methods:

- 1. Increasing the number of processors. A city of 100,000 people has more computing power than a village of 1,000 people.
- 2. Increasing the variety of processors. Different processors may use diverse ways to calculate and

- analyse data. Using several kinds of processors in a single system may therefore increase its dynamism and creativity. A conversation between a peasant, a priest and a physician may produce novel ideas that would never emerge from a conversation between three hunter-gatherers.
- 3. Increasing the number of connections between processors. There is little point in increasing the mere number and variety of processors if they are poorly connected to each other. A trade network linking ten cities is likely to result in many more economic, technological and social innovations than ten isolated cities.
- 4. Increasing freedom of movement along existing connections. Connecting processors is hardly useful if data cannot flow freely. Just building roads between ten cities won't be very useful if they are plagued by robbers, or if some paranoid despot doesn't allow merchants and travellers to move as they wish.

Harari is presenting these ideas as relatively new. Little does he realize that at least in the context of naval systems, a genius named James Carruthers understood and implemented them back in the 1970s.



Battle of the Atlantic Weekend

Planning is well underway for this year's Battle of the Atlantic Weekend, with a full calendar of events as follows:

- 30 April: **Battle of the Atlantic Gala**, Canadian War Museum
- 1 May: **NAC Conference**

The Battle of the Atlantic in a Canadian Context

- 2 May: NAC National Annual General Meeting
- 3 May: Battle of the Atlantic Parade, National War Memorial

The conference and NAC AGM will take place at a downtown hotel and this location will be announced once we have a contract in place.

A single ticket for this year's Gala Dinner will cost \$125. The Conference price will be \$100. A combined ticket for both the Gala and Conference will be available at a cost of \$200. All prices include Harmonized Sales Tax.

Stay tuned for more details, and for information about other #BOA75 events taking place across the country.



NIOBE PAPERS WOMEN IN THE RCN

By Catherine St-Jacques

Over the years, women have successfully moved into new occupations in new fields, and this includes the military. Since releasing its new defence policy in 2017, Strong, Secure, Engaged, the Canadian Armed Forces (CAF) have identified the recruitment of women as a priority. The policy states: "we are committed to attracting, recruiting and retaining more women in the CAF across all ranks and promoting women into senior leadership positions. The CAF is committed to gender equality and providing a work environment where women are welcomed, supported and respected." When the policy was released, women represented 15% of CAF members (compared to the 11% average of NATO allies). The goal established in Strong, Secure, Engaged is to increase this number to 25% over a period of 10 years.² The 25% female representation target is applied to all branches of the CAF, including the Royal Canadian Navy (RCN). The Chief of Defence Staff, General Jonathan Vance, is determined to reach this target and have women represent a quarter of the military personnel by 2026.3

According to official RCN statistics, there are 7,510 positions within the navy, 6,681 of which are filled with trained personnel. There are 760 women currently serving in the ranks of the RCN, representing 11.3% of the navy's regular force, a number lower than the average of women serving in the CAF in general.⁴ The RCN states that it is determined to meet the target set by Strong, Secure, Engaged, and continues to focus on achieving the goal.

Despite the enthusiasm with which the military leadership has greeted the proposal, the objective of increasing this number by 1% every year has so far

fallen short of its target. After two years, the number of women in the CAF has only increased by 0.7%, for a total of 15.7%. The CAF in general and the RCN still have difficulty recruiting and retaining women. Therefore, it is worth discussing the various challenges that women face in this male-dominated field of work. This article will briefly discuss the history of women in the RCN and the evolution of their role over the years, and will also provide an overview of some of the challenges in terms of recruitment and retention.

The History and Evolution of Women Serving in the Royal Canadian Navy

Women have served in the RCN since 1914. Given the extraordinary circumstances of fighting such a large conflict, particularly in the face of personnel shortages, exceptions were made to the prevailing social norms. During the First World War, the first women to serve in the Royal Canadian Navy although unofficially – took on the roles of nurses.⁵ It was not, however, until the Second World War and the Battle of the Atlantic that women assumed official roles within the ranks of the RCN. In January 1942, with the help of the British Admiralty, the RCN created the Women's Royal Canadian Naval Service (WRCNS). The female members who served in the WRCNS, also known as the Wrens, were considered to be an integral part of the RCN and therefore fell under the same regulations as the rest of the navy, meaning that female officers' rank and authority conformed to those of the RCN.6

Initially, Wrens worked in what were referred to as 'feminine trades' but as their integration into the navy progressed, more diverse and technical trades became available, such as visual signallers, coders and wireless telegraphists, among others. These roles

meant that the Wrens participated in actions such as locating enemy U-boats and assisting Allied vessels navigating in the Atlantic region, rendering their operations top secret as well as essential to the Allied war effort. By the end of the war, nearly 7,000 women had served as Wrens in 39 different trades. In August 1946, the WRCNS was disbanded, along with the Canadian Women's Army Corps and the Women's Division of the Royal Air Force, and it was not until the early 1950s that women could enroll in the CAF again. 8

Women's employment within the forces, however, remained restricted to traditional roles such as logistics medicine. communication, and administration. In the 1970s these discriminatory policies began to be contested following the recommendations issued in 1971 of the Royal Commission on the Status of Women. This resulted in expanding employment opportunities for women into areas.9 what were considered non-traditional However, following this report, there was a period of study and examination, and it was not until the late 1980s that women were fully integrated into all occupations within the RCN, with the exception of serving on submarines.

In 1979, the CAF introduced a series of tests to examine how mixed gender groups affected operational capabilities. The SWintEr tests were conducted from 1979 to 1984 and the crEW tests from 1987 to 1989. Following these tests, which were designed to examine the question of integrating women, the Royal Canadian Navy continued to restrict women from taking on combat roles but opened the opportunity for women to serve aboard support vessels such as the diving support ship HMCS Cormorant – the vessel used during the SWintEr tests – which had an integrated crew until the ship was retired in 1997.10 After Parliament passed the Canadian Human Rights Act in 1977 and the Canadian Charter of Rights and Freedoms was adopted in 1982, the RCN changed its policies to enable women to serve at sea in replenishment ships, which although not warships, serve in combat zones.11

Although all military occupations were opened to women in 1989 following the order to remove the

legal barriers to their employment, ¹² women were still restricted from serving aboard submarines until 2001.¹³ This exception was justified by the fact that the Oberon-class submarines that the RCN had at the time were not fit to accommodate both genders due to space and privacy issues. When Canada acquired the Victoria-class submarines in the 1990s, the last restriction to the employment of women in the navy was lifted as the newer vessels are (relatively) more spacious and allow for more privacy. It is however important to note that the mixed-gender crew aboard the Victoria-class submarines is not segregated, meaning that both women and men bunk in the same quarters. After making the announcement. Commander of the Canadian Navy Vice-Admiral Greg Maddison was asked about crewing, and in particular on the targeted number of women to serve on submarines, to which he replied: "[w]e're looking for the best people, the right people in terms of their skills and their capabilities and we have absolutely no target for either gender on board the vessels. We're just looking for the right people."14 Although a survey had shown that there was some reluctance among the male submariners to allow women to serve aboard submarines (only 27-30% supported the idea), Vice-Admiral Maddison explained that "when we did the same sort of polling during the 80s when we were introducing women on board our ships that roughly the same percentage of men thought this wasn't a good idea and yet after 15 or 16 years this has been an extraordinary successful endeavour."15

The CAF pointed to the opening of submarine service to women as the beginning of a new chapter. One could therefore assume that the removal of the last gender-based employment barrier would lessen some of the difficulties of recruiting and encouraging women to enroll in the RCN and the CAF in general. However, many women serving today in the navy still face a variety of challenges that contribute to the difficulty of recruiting and retaining female sailors.

Challenges and Career Development Barriers that Women Continue to Face

The challenges to women being fully integrated into the CAF in general, and the RCN in particular, can be placed into three categories. The first is legal barriers. As noted, these have been removed, and there are now no legal barriers to women serving in the navy – indeed, as noted earlier, getting women to serve is now a priority of the navy.

The second barrier could be called structural or accommodation. This means that in order for women to serve in ships, there had to be changes in the accommodations. In her article, "Learning how to be a Woman in the Canadian Forces," Nancy Taber describes the lack of accommodations and facilities for women as being a barrier, as female sailors are only allowed to serve on vessels equipped with designated female accommodations. 16 With the exception of submarines, women are accommodated separately on ships. This means that crewing becomes more complicated - i.e., women need to be bunked with other women, and this needs to be assessed with the numbers of crew members. As long as berthing is not integrated, there will be accommodation issues on RCN ships. Going to sea without a full crew is not advisable especially on operations, hence all bunks need to be filled, which means filling both gender accommodations.

As well as establishing female accommodation on ships, there had to be some consideration of washroom facilities for women to ensure security and privacy. In general, these barriers have been overcome as older vessels which were initially designed for a single gender have been adapted so that they could accommodate both male and female sailors, and newer ships are constructed with accommodations for both genders.

The final category is cultural, or attitudinal. These challenges, not surprisingly, take longer to overcome. Employment barriers are far from being the only challenge that women in the RCN, and in the CAF in general, have had and continue to face. These challenges stem not only from the organizational culture but also its structure. A lot of these challenges, such as child care, spousal employment, lack of geographic stability, pregnancy leave, single parenthood, etc., have been identified as contributing factors to the difficulty of retaining women within the forces.¹⁷

Several studies have demonstrated that "there is a

belief in some military organizations that in the navy, a woman's pregnancy is an excuse not to be sent to sea." Whether or not that continues to be the attitude, it is clear that women have concerns about the balance between their children and their career. Balancing military life with motherhood, combined with a certain lack of family support measures tends to lead to a higher number of women retiring from the forces in general when they start having children. If women do not retire but simply take maternity leave, then this can have implications for their career path and promotion prospects.

According to Taber, women leaving the military when they have children is not necessarily a cause-to-effect relationship but stems rather from structural issues. ¹⁹ And as K. Davis puts it: "[t]he final decision to leave [...] was the result of ongoing discrimination associated with administrative and psychological isolation, and workplace perceptions surrounding maternity, family status, and gender roles. Women chose to leave when the organizational environment became a continuous source of stress which significantly compromised their quality of life." ²⁰

Although family relations have changed over the years, it is still predominantly women who are responsible for child care. There have long been family support programs, but in general they tend to focus on support for women who are left at home when their husbands went to sea. This has begun to change. The Military Family Services program, which was launched in 1991, is still operating to support members but two new initiatives were launched in 2011 to connect military families to programs and resources more effectively. These services are accessible online through the FamilyForce.ca website and the Family Information Line.²¹

Pregnancy and family planning are not the only career development barriers that women in the navy continue to face. The issue of family and child care has affected the deployment of women on some longer operations. According to Taber, "[w]omen were actively prevented from going on these longer deployments that help them attain this 'time in' respect and opportunities for promotion, at a time

when women were legally entitled to equal rights in the workplace."²² Although Taber's experience dates back to her service in the 1990s, these issues are still relevant today. I conducted a series of interviews with women currently serving in the RCN and this particular issue came up. One interviewee described how she had missed out on some sailing opportunities because of a lack of bunk space available for women. Lack of support for child care and lack of bunk space for women may affect their ability to deploy on longer operations – and that in turn may affect their career.

In the fall of 2016, the Auditor General of Canada released the Canadian Armed Forces Recruitment and Retention report. This report proposed a new program which would facilitate the move between the regular and the reserve forces as a solution and attempt to retain personnel, especially members wishing to start raising a family. As the report pointed out, this measure would enable members to "make sure they have their chance to take a break and come back without a penalty in how they're getting paid, and certainly with the opportunity to continue contributing to that their pension fund."23 While the navy is two-pronged, with both regular and reserve forces, it operates under the 'One Navy' concept, meaning that reservists are trained and prepared in order to support the regular force through part-time and full-time service. As stated in the Royal Canadian Navy Strategic Plan 2017-2022, the Naval Reserve Evolution initiative "relies on the RCN's ability to provide positive training experiences leading to qualifications, employment common exciting opportunities and meaningful career progression."24

Another big barrier that women in have faced is the problem of sexual harassment and the need for an organizational culture change within the forces. The CAF first introduced education with regard to sexual harassment in the mid-1990s. Although sexual harassment and racism prevention programs were introduced, over time this ceased to be a priority and commitment to the programs was inconsistent. It was not until 2014 that the CAF acknowledged the need to address the rampant problem of sexual harassment and sexual violence within the organization.²⁵ When the External Review into Sexual Misconduct and Sexual Harassment in the Canadian Armed Forces

conducted by former Supreme Court Judge Marie Deschamps came out in 2015, it stated that there is "an underlying sexualized culture in the CAF that is hostile to women and LGBTQ members, and conductive to more serious incidents of sexual assault."26 harassment and The sexualized described environment is in the report "characterized by the frequent use of swear words and highly degrading expressions that reference women's bodies, sexual jokes, innuendos, discriminatory comments with respect to the abilities of women, and unwelcome sexual touching."27

In her 10 recommendations, Justice Deschamps called for a radical cultural change within the CAF to eliminate the sexualized environment. Strong, Secure, Engaged integrated these 10 recommendations within its mandate and created Operation Honour, which not only aims to eliminate inappropriate sexual behaviour, but also commits to respond better to such incidents, to support victims more efficiently and effectively, and ultimately to prevent such incidents from occurring.²⁸

The report also stressed the importance of improving the integration of women, especially in positions of senior leadership, as a key implementing a culture change. This raises the question of promotion within the military which is a very sensitive one. Stating that it wants to ensure that women are filling positions of authority gives the impression among some men that their own chances of promotion will thereby be lessened. However, this will (hopefully) change when more women who pull their own weight and conduct themselves professionally illustrate that promotion is based on merit, not gender.

Another problem that has been seen in the military is that, due to gender stereotyping, it has been said that both men and women sometimes find it difficult to take orders from a woman. As well, according to Charlotte Holgersson, "the constructs of leaders and leadership stem from male norms or standards. As a result, women's leadership tends to be evaluated on the basis of the prevailing male norms for leadership."²⁹ In her article, Taber describes her experience of "socialization into the organizational"

culture" as having to adopt the masculine practices of the male members as a way to cope with the culture at the time. As she states, "[i]t was very easy to fall in with the men; in fact, it was much easier to become one of them and adapt their attitudes towards women than it was to dispute them. In that way, hopefully we could escape being a target."³⁰

Taber's experience is from a number of years ago, so I asked the interviewees about their thoughts on working in a male-dominated workplace and their views on the importance of having more women in the higher chain of command. While interviewees were unanimous that this was a very positive initiative, one of the respondents pointed out that this would not automatically rectify the problem as she had had to file more than one harassment complaint against female superiors. Another pointed out that "nearly as many women as men are culprits of the behaviours that create this tension in the work place." Nevertheless, she reported that seeing more women higher in the chain of command is not only inspiring but also came as a "relief to have someone who understood what it was like for women."

As for the outcome and perspectives on Operation Honour, the interviewees seemed satisfied with the outcome so far, as they see it as an important and integral part of changing the organizational culture. There were however comments on the "poor delivery" of the message and the feeling, particularly among men, of "walking on egg shells" for fear of being charged for things that weren't necessarily harassment but rather "misunderstood jokes or stories." The CAF are however keeping track of the outcomes and delivery of Operation Honour and have identified the successful and less successful outcomes in the Progress Report Addressing Sexual Misconduct, published in February 2019. We can therefore expect these findings to shape the future of the implementation of the 10 recommendations set by Justice Deschamps in the coming years.

Recruiting and Retaining Women in the Royal Canadian Navy

As outlined in the previous section, the many challenges that women in the RCN face have caused

some problems in terms of recruitment and retention, thus hindering the defence policy goal to attain a 25% representation of women within the CAF. In order to reach this target, the RCN has implemented a list of initiatives including: conducting internal research; developing a performance measurement framework; aligning diversity with command, management and leadership doctrine: conducting strategic communication; and improving health care, spirituality and family support. In terms recruitment initiatives geared towards women, the RCN has the 'Recruiter for a Day' initiative in which recruitment for both the naval reserve units and the regular force is being promoted. A female representative is always present at these events to ensure not only representation of diversity, but also to address any questions or concerns from potential female candidates. There is also the 'Ask Me Anything' online chat group where women are available to answer questions. The 'Point of Contact' is another recruitment initiative which allows applicants to speak to someone who works in their area of interest. Finally, the RCN has released occupation videos which all have females as either narrators or subjects.³¹

In terms of retention, the RCN follows the Defence Team Departmental Plan 2019-2020 which tries to reflect the values and diversity of Canadian society, thus ensuring that both men and women are well supported throughout their military career, with the goal of retaining trained personnel. The Defence Team stresses the importance of implementing the 10 recommendations of the Deschamps Report but it also aims to implement the Employment Equity Plan. The latter identifies and addresses employment equity gaps and continues to implement the federal government's Diversity and Inclusion Strategy.³² This strategy tracks the progress to address, not only employment with regards to equity but also diversity gaps at the senior levels. It also identifies opportunities that would support diversity and inclusion during the recruitment process and aims to remove systemic barriers in terms of human resources. Finally, other important elements are the initiatives that have been put in place to ensure that military families are well supported and remain resilient.33

Moving Forward

The Canadian Armed Forces (CAF) have been hailed as being a world leader when it comes to the proportion of women in the ranks. As a member of NATO, Canada has been active in contributing to the integration of gender-based considerations NATO-led operations.³⁴ The topic of gender perspectives in NATO-member armed forces rests on the principle that "the complementary skills of both male and female personnel are essential for the effectiveness of NATO operations," and as such, the NATO Committee on Gender Perspectives has been working with its members to integrate a gender perspective into the organization's operations.³⁵

Having said that, however, women serving in the RCN have faced an array of barriers and challenges. Whether they were related to legal obstacles to employment, stemmed from the culture of the organization or from the organizational structure, there have been barriers along the way. Nonetheless, female sailors have persevered throughout the years and have greatly contributed to operational efforts, and through their struggles, they have brought about important changes as to how the RCN operates.

A great example of the progress that has been made over the past century is the appointment of Commodore Josée Kurtz to lead the Standing NATO Maritime Group Two (SNMG2). When she was appointed to this role in mid-June 2019, the 31-year veteran became the first woman to command a standing NATO fleet. Commodore Kurtz has stated that this "sends a really strong signal to the newer generation of young people who want to do a military career, and I say that whether they are women, or men, or any minority group." With enough visibility, such a milestone might just be part of the solution to attracting more women to join the ranks of the RCN.

Without a doubt, Canadian women serving in the RCN have been pioneers who have paved the way for future generations aspiring to pursue a military career. Although they continue to face challenges in this still male-dominated work environment, their resilience is

nothing but inspirational. When asked about their opinion regarding the ongoing challenges faced, the female sailors I interviewed unanimously stated that they would not be stopped. According to one, "I persevere for me, but I fight for the future women of our military."

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Contribute to the Naval Affairs Program

The Naval Affairs Program in the NAC's effort to raise Canadians' awareness and appreciation for the Navy and the services it provides the nation. Polls have show that Canadians simply don't understand the Navy and we aim to push back.

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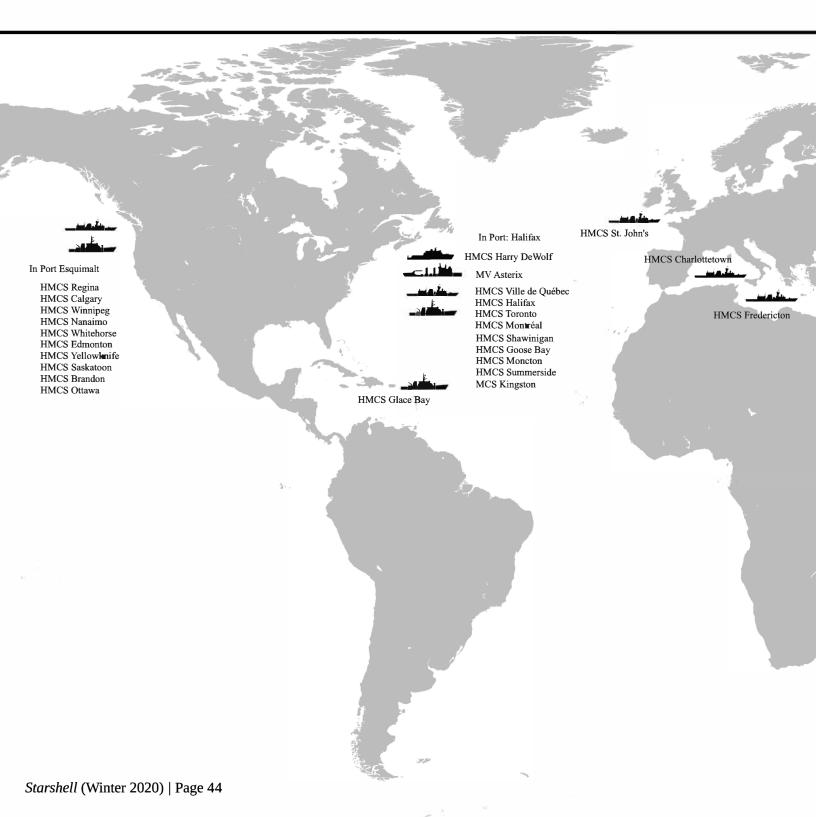
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RCN FLEET DEPLOYMENTS

FEBRUARY 2020

An active and globally deployed fleet, the RCN operates across the world. From sovereignty and counter-narcotics missions to deterrence and training operations with partners and allies, Canadian ships are constantly on the move. This section offers a snapshot of fleet deployments as *Starshell* goes to print.





From the Branches

Tim Addison Presented the NAC National Gold Medallion

At the NAC-Ottawa monthly meeting of November 4th, 2019, on behalf of all NAC and witnessed by family members and the Chief of the RCN VAdm Art McDonald, Branch Vice-President Tim Addison presented the NAC national Gold Medallion and accompanying certificate to NAC-Ottawa member and retired Canadian Merchant Navy Captain Paul Bender. Captain Bender is a Merchant Navy World War II veteran. The award is for his dedicated and highly successful campaign to have Canadian Merchant Navy and RCN wartime sunken vessels recognized by the federal government as national war graves on a par with the Commonwealth war graves. The vessels will now be under the same protection and reverence accorded all other war graves.

A Letter to the Editor: The New AOPS and its Armaments

There was a US Coast Guard cutter visiting Victoria in early October 2019, the USCGC *Douglas Munro*. This ship is armed with a 76 mm gun, and a Close-In Weapon System, with a top speed of 27 knots. This cutter's armament is similar to any navy ship in the world today, yet it is not a navy ship, but a coast guard cutter. Now comes the Canadian navy's newest



ships being built, the Harry DeWolf class ships. These new ships will be armed with a 25 mm machine gun system, intended to support domestic constabulary missions, and the ships will have a top speed of 17 knots (slower than a BC ferry). The ships' advertised mission set includes the defence of Canada and North America. The Harry DeWolf class ships are modeled after the Norwegian Coast Guard ship Svalbard, which has real naval weapons, including a 57 mm naval gun and one Simbad surface to air missile system. So, this begs the question, why did Canada

take the design of a combatant ship and turn it into a domestic non-combatant obviously unable to defend Canada and North-America.

Roger Cyr

Victoria, BC

Contributions Recognized

During the NAC-VI Christmas luncheon at the Royal Victoria Yacht Club on 12 December, 2019 Bill Conconi, NAC President, awarded an NAC Gold Medal to Bo Hermanson in recognition of his artistic contributions in illustrating our naval history and Bronze Medals to David Cooper and Mike Brossard for their long-term efforts on the Executive board of NAC-VI. Diana Dewar was presented a Bronze Medal on an earlier occasion in recognition of her work as the NAC-VI Branch Treasurer.



NAC Regalia Sales Blazer Badge (NAC or RCN) \$25 each \$14.50 each Blazer Buttons (NAC), large for blazer front Notes small sleeve buttons are no longer in stock but can be special ordered. Cuff Links (NOAC or NAC) \$35/ pair Medallion Lapel Pins - Gold, Silver, Bronze \$5 each \$95 each Medallion Neck Decorations Necktie - NOAC/NAC/RCN \$35 each Prices include all taxes and shipping, Finall Executive Director, David Soule, executive director-nacio outlook comto confirm availability. Payment: Cheque guyable to "NAC National" and mail your order to Executive Director-NAC, 1138 Sauterne Pk., Orleans, ON ICIC 2N8 E-transfer to The Naval Association of Canada - email address: executive director-nac@outlook.com

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



"Run him Through"

My immediate boss in Halifax was Commodore Hugh Pullen, he was in charge of the huge 'Stadacona' naval base. This base provided support to the fleet; all the technical schools were part of 'Stad'; gunnery, navigation, anti-submarine, diving, and others. Stadacona also governed thousands of married quarters, the naval jail, and the movement of all sailors to and from ships.

Commodore Pullen was always helpful in the running of my 'Jolt' courses, he took particular interest in the advancement of the ex-reservists and gave the occasional, amusing, talk to them. One day in May he sent for me, he said the Admiral wished to see me. He said that whatever the Admiral had in mind would be OK with him. This was a bit mysterious as Hugh Pullen was a most direct officer and I thought it unlikely he wouldn't know why the Admiral wanted to see me.

When I reported to Admiral Roger Bidwell, whose offices were in the Naval dockyard, half a mile from Stad, he said, "I have chosen you to lead our naval contingent in the parade for the coronation of Queen Elizabeth." I was no stranger to Roger Bidwell; when I was captain of Haida, raiding Norway in 1945 he was captain of the aircraft-carrier Puncher. We had rescued two of his aircrew that had ditched and had returned them unhurt. Now he wanted me to lead a parade!

Gunnery officers always led naval parades. Gunnery officers and gunnery Chief Petty Officers were the people who taught all the rest of us how to march, stand tall, have shiny shoes, speak forcibly, hurry up, say 'Sir'. They did this at every opportunity. Gunnery people knew they were properly and solely in charge of the deportment of all-hands. These gunnery people were universally regarded as 'officious'. They had their own association called 'Friends of Gunnery' and only they could belong! At one stage in my early career I seriously considered becoming a 'Gunnery Officer' as a means of not having to serve with one of them, as a ship needed only one Gunnery officer.

"Why me, Sir?", I asked, sensing someone was planting a mine on my route.

"Three reasons," said the Admiral, "First, I owe you one for rescuing my flyers and thereby saving me administrative trouble; secondly, you are not a gunnery officer; and finally, because you have more medals than I do and I want you out of town."

"I'll try and stand up straight Sir." I was sure it was the 'Gunnery' reason that counted; the other two were jokes. Admiral Roger Bidwell always looked as though he had slept in his uniform, he wore a cap that was too large, he slouched about, he had a friendly attitude. He must have been targeted by the gunnery people every day for all his thirty years of service. And this was his chance to kick their collective asses, including that of Commodore Hugh Pullen who was a gunnery officer. But I was just guessing.

"Let's go the mess for a drink," he said. As we walked up the hill to Admiralty house I explained it was not my fault for having so many medals. He said, "I've noticed you describe events rather well." He was joking, or half-joking; my senior officers had been surprised to see my stories of Korea in the Toronto

Star. It was unusual to have naval operations mouthed by a participant with his own by-line; normally, stories were told by one of the Navy's 'press' officers, and that's why I thought he was just half-joking!

Naval Headquarters had told Admiral Bidwell to organize the coronation contingent. They ordered the inclusion of at least one person from each naval establishment in the country. In a couple of weeks those selected by their own units began to arrive in Stadacona. Soon there were 150 of us; half permanent force and half reservists. The numbers included thirty-six women, Wrens and Nursing sisters. I had two weeks to get us ready to leave for England.

Prince Phillip meets Colonel Paul Triquet. I am at right, my Lieutenants, Clarke, Richardson and Wilson are on the left. Pirbright UK 28 May 1953

We knew the march on the day was to be 17 miles through the streets of London. I got my contingent, and myself, onto road-work immediately. At the very least we had to be good for 17 miles. We came from places 4,000 miles apart, from Prince Rupert to St.

Johns; every comer of Canada was represented. In a few days we gave up walking and started marching. As the days passed we extended our tramps and at the end of two weeks our final march was twenty miles, no one dropped out. My training plan encouraged us to sing, strum a guitar and keep time to a drum. It was un-gunnery and a lot of laughs and tough enough. A great supporter, and my technical trainer (for rifle and sword drill) was Chief Petty Officer Abbott. He was the gunlayer of Haida's main armament in the fighting in the channel; and although a 'gunnery' person believed in enjoying whatever he was doing.

In the London parade we were going to march

twelve abreast; early in our practice sessions the girls found that those on the outside of a turn couldn't keep up; their skirts restricted their stride, "Slit them up to your bum" said the senior nursing sister, a solution that was readily adopted by the Wrens as well. This turned out to be a popular, whistle-drawing, uniform modification when we wheeled through the streets of London.

During this training period my squash-playing friend, Bruce Oland, heir to the Oland Brewery dynasty, made an offer to supply beer for a party that I could hold in England. The Oland family were notable for supporting all manner of activities, many not closely allied with drinking beer. One of the family, Captain Dick Oland, was in charge of assembling the wartime convoys in Halifax: Bruce was now an officer in the naval reserve. When my contingent sailed for England we had on board 100 cases of Oland's Ale, donated by the brewery.

The women took passage in a merchant liner; we men weren't so spoiled, we went in the cruiser Quebec. We joined up at a British Army camp called Pirbright, and met our marching compatriots from the Canadian Army and Air Force,

and from the RCMP, which included fifty black horses. We trained for a week, along with a Canadian army band that came from a base in Germany. Evenings were free; in the pubs we mixed with the hundreds of other Commonwealth troops; South Gurkhas. Africans. New Zealanders. Grenadier Guards, Aussies. Most of the 15,000 who were to be in the parade were in this huge encampment; no-one was taking it too seriously. We were the same people who had won the war. We were just seven years older.

Prince Phillip, Elizabeth's husband, who had been promoted from Lieutenant to Admiral only a week before, was invited to inspected us at the Pirbright camp.

The inspection procedure required the leaders of contingents to accompany Phillip throughout his walk-around, therefore I was present when Lieut. Colonel Jim Stone led him around the Army contingent:

"Sir", said Stone to the Prince, "I present Lieutenant Colonel Paul Triquet of the Regiment de Van Deuxieme. He wears the Victoria cross, Distinguished Service Order, and is in command of our reserve army."

Stone was a heroic figure; six two, perpendicular, waxed mustache, abrasive voice, size twelve boots, and wore the Distinguished Service Order and Military Cross on his barrel chest. Stone had a well deserved reputation for making jokes, usually at other peoples' expense. Paul Triquet's Victoria Cross was just one of three awarded to 'living' servicemen during the war. He had been a remarkable infantry soldier and was now a lawyer.

"Sir", said Stone." You can recognize the Colonel's regiment Royal 22e Regiment by the rat they wear on their cap."

Colonel Triquet was both surprised and annoved by Stone's description of his regimental badge, but he smiled at the Prince and said, "Sir, eet is not a



The twelve sailors on the left are my 'Front rank' for the march. The first one is Leadin Seaman Wright who is less pious than he looks.

rraat, eet is a beevaire", accenting his educated French.

Phillip, who had been in the Navy for fourteen years, instantly recognized a 'service' put-on, and immediately engaged Triquet in a discussion in French. Not a word of which Stone understood. Triquet had said to the Prince, "I trust you will forgive the appalling ignorance of my stupid commanding officer."

As Phillip and I walked to review my contingent, he said. "We've met before, maybe in Londonderry?" I remembered meeting him at a pub, near the end of the war. He was then a mere lieutenant, I was captain of a destroyer. Somehow he had now jumped me by six

> ranks! And I was three years older too.

"Alice's", I said, 'The pub with the dirt floor, across the river."

"Right on. Alice never washed the glasses."

Phillip had been in the Royal Navy as a fourteen-year-old cadet, then as a midshipman. He had grown up in the



REGIMENT



Eet is a beevaire!



ined, my shoes were filled, but only for the first ten miles. I had some problem in choosing which of 46 bands to time with. The loudest cheers came from the Canadian stands.

warships. He was widely known because of his connection to Admiral Louis Mountbatten (nephew). He was universally popular with his shipmates, a good athlete, witty, perpetually broke and was affectionately called 'Phil the Greek'. So all of us were quietly happy when he won the girl and went from lieutenant to full admiral in a week.

Two days before the parade we all moved to Wembley stadium, it was converted into a hostel for nine thousand, including important people like me! It was filled with cots, blankets, wooden tables for eating, hundreds of women giggling. There was music, wine and beer. Fun

But I got little rest. The leaders of each section and my front rank of twelve sailors, were required to walk the route in central London in order to learn how to split when passing street obstacles, like pedestrian islands. This exercise was done a 0300 when the streets were abandoned and everyone else was in bed; 'Dress is optional', said the instructions.

My twelve leading sailors arrived in a variety of garbs and states of sobriety; Leading Seaman Wright, pictured above, was very proper, and somewhat wobbly in a red dressing gown, woolly slippers, and a Mountie's broad-brimmed hat; he did not seem out of place! I felt quite comfortable in dinner-jacket trousers, shoes to match and a red turtle-neck sweater. Fellow members of the British Commonwealth were likewise appropriately dressed; there were a lot of turbans.

Owing to the parade organization, that required

contingents march in the order of Commonwealth seniority (which I won't explain). I, with my twelve front-rank sailors were positioned immediately ahead of the Royal Australian Air Force. The night was clear, streets were abandoned, our shuffling footsteps echoed off the buildings as we trod along Oxford street, Cumberland Road, Knightsbridge. British Army sergeants instructed us at each obstacle, "Split in threes"; "All go to the right on this one", and so on.

When going around Piccadilly Circus three girls were, leaning, in a doorway, "Ere lads", one yelled in a chirpy cockney voice, "Want some naughty girls?" Without a moment's hesitation, the Wing Commander, six steps behind me, announced in stentorian Aussie, "Royal Australian Air force, Commanding Officer and Front Rank, Right Turn". Which they did, and tramped off in the direction of the girls. I have kicked myself ever since for not thinking of it before that damn Air Force Aussie.

On the day, marching down Oxford street, with thousands yelling and clapping, I saw a man stagger to his feet and start toward me .

He wobbled past the soldiers lining the street and headed my way. He was carrying a bottle, holding it forward as if to offer me a drink. His manner was friendly but unsteady. I was holding my unsheathed sword at its proper angle, keeping time to any drum I could hear and doing my best to create a good impression, which I guess, is why I was there. The drunk got halfway toward me. I paid him absolutely no attention.

"Run him through, Sir", said a loud voice behind me. I recognized it as that of Able Seaman Wright.



The day after the march I attended a commemorate ceremony at Buckingham Palace.

The soldier on the left is Field Marshall Jan Smuts, Governor General of South Africa. He was the honorary parade marshal.

Then a chorus from my front rank, the same gang as accompanied me on the midnight march, "Run him through, Sir. Run him through". Their cadence was that of the nearest drummer, "Run him through". I remember thinking of huge young Queen Salote of Tonga: she was getting vast press attention for appearing in a horse-drawn carriage. She wore a red floppy-hat that partly shielded three hundred pounds of golden tan and startling rows of teeth. Tonga was on the front pages. How about Canada? Nothing - no mention of us. The drunk kept moving toward me. Run him through? Wright and his front-rank buddies think I won't do it? News of the World headline:

'Canadian officer impales innocent spectator'. Could I claim Self Defence? These scattered thoughts skipped through my head in time with the drums. The drunk was only feet away. Then a London Bobby tackled him and crunched him down. My contingent marched, in step, right over them both. Next time I won't be so chicken!

We did the seventeen miles, no-one dropped out, the girls wheeled in formation taking huge slit-skirt strides on the outside comers.

No one missed the wine and beer party back at Wembley stadium; which was funded by the British government. The English know how to run a parade.

A few days after this experience I got a letter from Admiral Bidwell. If I was relieved it went well, he must have been doubly so!

In this note the admiral says 'Bad luck indeed'. This refers to my catching mumps the day after the parade and going into hospital. Mumps was rife in Pirbright, and two Gurkha soldiers died because of it. My neck glands began to swell just hours after the above picture was taken. Maybe I had passed it to the Queen when she pinned a medal on me? Apparently not, as it turned out.

I was flown back to Canada when I recovered and was home by the end of June. The promotion list came out on July 1st I was made captain. Maybe I'd stay and make admiral?





Rear Admiral Roger Bidwell hands me a badge to commemorate the Coronation Contingent.

OVER 500 DAYS AT SEA AND 50 PAINTINGS

A RETROSPECTIVE OF MARINE ARTIST BO HERMANSON

By Paul Seguna, LCdr RCN (Ret'd) NAC-VI

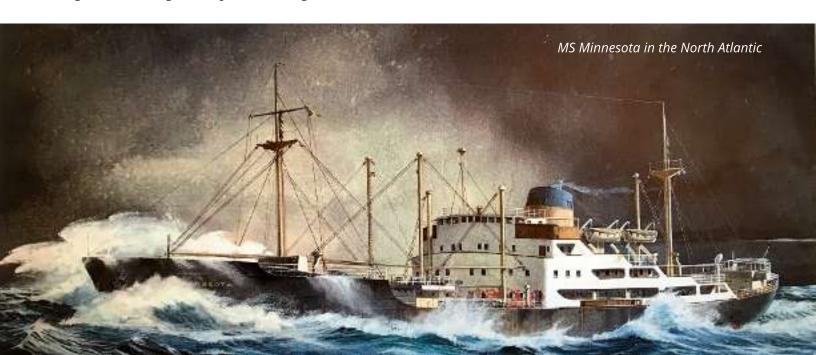
This past December Bo Hermanson, (Canadian Society of Maritime Artists), and NAC-VI member was recognized for his long-term contributions in telling the RCN story through art with the Naval Association of Canada Gold Medal..

In the fall, I had the opportunity to enjoy the Hermansons' hospitality at their charming house in the rural outskirts of Victoria, BC during an afternoon where as a privileged visitor I was given a peek into the imaginative world Bo has created there. Surrounded by the artwork, mementos, ship models, and reference books of a lifetime of creative efforts in marine and naval art, Bo guided me through his studio that included a life-sized and fully functional flight simulator of a Boeing 707 cockpit! The 707 flight simulator was impressive enough but it was complimented by a replica of a ship's cabin next door! Amongst the cornucopia of items of interest is a framed certificate attesting to 500 days spent at sea with the RCN of which Bo is justifiably proud.

So how, when and where did this long association with the RCN begin. Bo, born in Sweden, served at sea in the merchant service as a young man before coming to Canada and later studying architectural design in Los Angeles. Upon returning to Canada —

Vancouver to be precise – he met his wife Christina and worked as a design consultant. In 1981 Bo moved to Victoria with more time to devote to his long-term interest in marine painting and was encouraged to focus on the RCN for subject matter after a chance meeting with RCN Commanders Craig Campbell, Gregor MacIntosh, and Bob Luke. Commissions for naval paintings soon followed and so began a close association with the Canadian Navy of twenty years that included over five hundred days spent at sea with the RCN and the production of roughly 50 original paintings and over 10,000 prints illustrating the ships and operations of the RCN.

The meticulous research and dedication to accuracy in Bo's artwork, as also evidenced in his other pursuits, produced paintings that very accurately depict the ships of the RCN and the conditions in which they operated. Apart from his professionalism as an artist, Bo related his great enthusiasm for, and pride in, his long association with the RCN. His award of the NAC Gold Medal, along with his many other accolades, are well deserved and warrant a 'Bravo Zulu' for his role in bringing the navy to the wider public audience ashore through the appeal of art based on his experiences at sea.





Bo composition sketches



Bo working on HMCS Cayuga



Bo's 707 simulator flying over Seattle







Book Reviews

Six Victories, Vincent P. O'Hara (Naval Institute Press, 2019)

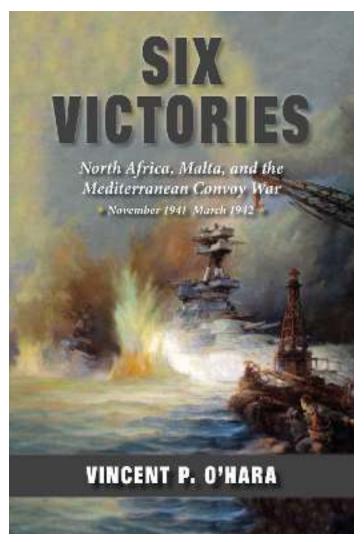
Reviewed by Gord Forbes

This book subtitled 'North Africa, Malta and the Mediterranean Convoy War, November 1941 to March 1942, is yet another book that addresses some of the battles that were fought during this period in the Mediterranean. It is a very detailed book which shows the fruits of significant research. It shows, for example, the tonnage and maximum speed of every merchant ship that took part in the convoys.

The context is the need for material reinforcement that were required to resupply Malta on the British side and the equally important resupply to the Italian and German armies in North Africa. Malta was important as the base where the British tried to gain control of the central Mediterranean by disrupting the Italian convoys and trying to defeat the Italian fleet. North Africa was important to the Axis partners as they sought to reach Egypt, the Suez Canal and the Middle East. It was a hard fought contest by both sides. The book shows how the land battle waxed and waned depending upon the course of the battles at sea.

In the story of most of the battles, the action is very thorough with a good selection of illustrations of ship movements. The objective of each convoy with its destination and protection plan is well covered as is the plan of the opposition when such opposition was undertaken. Because of challenges with fuel, ammunition and lack of resources, the British were not able to oppose every Italian convoy. Each significant battle is covered in some detail.

The problem with this book is that it is sometimes confusing to read.Even after reading, you are left with the question of what the six victories were. It would appear that they include victories by both sides. The



two victories that are clearly identified are the first and second Battles of Sirte which bracket the period in question and the attack by Italian underwater divers on ships in Alexandria that sank the two British battleships, *HMS Valiant* and *HMS Queen Elizabeth*. This eliminated British battle ships from the Mediterranean and much reduced the British ability to attack the Italians and protect their own convoys. The

second Battle of Sirte, which took place in March 1942, was an obvious Axis victory which isolated Malta for many months. One can only guess what constituted the other three victories.

The issue of detail can also obscure the real message. This is the same problem that plagued another book, 'The War in the Mediterranean 1940 – 1943' reviewed in *Starshell* in 2014. As indicated above, the tonnage and speed of each merchant vessel is but one item of trivia encountered. The number of shells fired, and torpedoes launched is another. Detail can enhance a story where necessary but can get in the way when overdone.

Nonetheless, for those who can look past the faults in the book, this book is a compelling picture of the struggle that took place in those five months.

Guns, Germs, and Steel, Jared Diamond (WW Norton, 1999)

Reviewed by Richard Archer

How is it that Europeans came to settle in and dominate so much of the world when other peoples had more ancient histories along with more impressive records of accomplishment in such fields as agriculture, science, technology and the arts? I would argue that the reason lies in maritime power. And therein lies a lesson for Canada.

In Guns, Germs, and Steel: The Fates of Human Societies, Jared Diamond argues that among other factors, Europe's advantage was its proximity to the fertile lands surrounding the Tigris and Euphrates. Early Europeans abandoned some of their hunter-gathering pursuits to exploit the region's potential for agriculture. In due course, success in agriculture freed much of the population of Europe from direct reliance on personal food production for survival. When the time was ripe, a significant portion of the population could then assemble in towns and cities, and begin to develop specializations such as architecture, military prowess and the arts.

This begs the question: why had Africans, who had undergone a developmental process even earlier, not invaded Europe, beyond Hannibal and his elephants and the Moors, to subjugate the continent and its inhabitants? And why didn't the civilizations of

Pre-Columbian Central and South America show up on Europe's doorstep demanding subservience, access to riches and allegiance to their gods? It certainly wasn't due to biology – the peoples of Africa and the Americas had no less brainpower than the Europeans, and they had better health. Nor was it due to a shortage of natural resources or weak political and social structures – especially not in the case of Pre-Columbian Americans.

To answer this question about western hemisphere civilization, Diamond points to the north-south axis of the Americas, and suggests that distance and territorial impediments discouraged movement and learning. Moreover, he says, variation in climate hindered the domestication of livestock which was such a positive factor in Europe's burgeoning agriculture and social development. Freed from hunting and gathering for survival, and located on a smaller continent having a general east-west axis, he makes the point that Europeans were afforded the luxury to experiment, innovate and expand in ways other societies could not.

By the 18th century, when Europeans began to arrive in China in numbers, the Chinese Empire had been in existence for more than a thousand years. Why hadn't the Chinese long since built on the spirit of Attila the Hun and subjugated and settled large swathes of Asia, east Africa and western North America? It's not as if they hadn't possessed the technology.

In fact, from 1405 to 1433, using known sea lines of communication, on behalf of his emperor the Chinese admiral Zheng He led seven expeditions to as far west as the coast of Africa. His objectives were to exert imperial control through showing the flag, exacting tribute, and suppressing piracy and local rebellions. His fleet included massive 120-meter "treasure ships", said to have as many as nine masts. Compare this with the puny ships of 27 meters which the Portuguese explorer Vasco da Gama used in 1497-1498 to sail around the Cape of Good Hope, thus establishing a European route to the riches of India. Unfortunately for China, Zheng He's treasure ship initiative fell afoul of palace power struggles and was not repeated. Later emperors, still largely continental their outlook. lacked

outward-looking global vision to take advantage of Zheng He's expeditionary acumen.

The Europeans on the other hand were relentless, even if their forays into China weren't always successful. In 1793, British Lord Macartney, in an effort to jumpstart trade, presented the Chinese Emperor with a wide range of British goods. "But the Emperor was not remotely interested. The gifts were regarded as items of tribute from a respectful liege."

Mercantile zeal drove European governments to

support private interests such as the Dutch giant Vereenigde NEW Oost-Indische Compagnie and the smaller British East India Company their in distant ventures, including authorizing such companies to arm their vessels and raise their own standing armies to subjugate local populations, with all the excesses one might expect. In the interests of trade, the East Indies as well as India became virtual European commercial Some of properties. these practices lasted into the late 19th and early 20th century, with King Leopold II assuming Belgium private "ownership" of the Congo and its population, with all the riches from ivory and rubber going into his personal coffers.

In China, European practices led to the two Opium Wars of 1839-1842 and 1856-58. Their root cause was the British need to overcome Chinese governmental restrictions on the import of poppy derivatives to supply the Chinese heroin market, so that the British could then raise the cash to pay for and take home that other commodity required to slake their very own British addiction – tea. British gunships and troops overcame Chinese defences such as there were. Treaties were signed allowing the foreign barbarians open access to "treaty ports" and ceding certain to the two Opium Wars of 1839-1842 and 1856-58. Their root cause was the other continents, Counting southwere Anatolian, the Grain islands lie in proprofitable trade resign of land. Commany and usually could readily device the counting southwere and the proprofitable trade resign of land. Commany and usually could readily device the counting southwere and the proprofitable trade resign of land. Commany and usually could readily device the counting southwere and the proprofitable trade resign of land. Commany and usually could readily device the counting southwere and the proprofitable trade resign of land. Commany and usually could readily device the counting southwere and the proprofitable trade resign of land. Commany and usually could readily device the counting southwere and the proprofitable trade resign of land. Commany and usually could readily device the counting southwere and the proprofitable trade resign of land. Commany and usually could readily device the counting southwere and the proprofitable trade resign of land. Commany and usually could readily device the counting southwere and the counting south

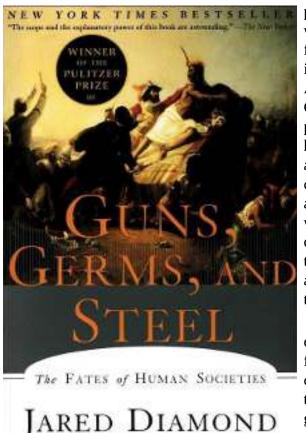
British crown colony in 1842. Iconic trading companies like Jardine, Matheson and Co. were ensconced. In due course, France, Germany, Russia, and Japan secured their own "concessions". Understandably, the Chinese call this period in their history the "century of humiliation."

Clearly, Diamond's "guns, germs and steel" doesn't tell the whole story. They were certainly important factors in European development and the proximate causes of early European successes. But

European mercantilism – the penchant for seeking profits and wealth wherever they could be found – was the common factor in the subjugation of the Americas, Africa and China. Crucially however, none of this pursuit of global riches would have been possible in the absence of a European maritime culture and ocean-going ships and their weapons, what we would call today "maritime expeditionary capability." It is this capability which has been at the core of human history for the last 500 years or so.

So where did this expeditionary capability come from? Why did maritime capability arise in Europe rather than anywhere else? Simply, the geography of Europe provides the answer.

Look at a world map. Unlike other continents, Europe is a mass of peninsulas. Counting southwest Asia, the peninsulas include the Anatolian, the Greek, the Italian, the Iberian, the Brest, the Danish and the Swedish/Norwegian. A number of inland seas result, and relatively large islands lie in proximity. So the quickest and most profitable trade routes are by sea, and often out of sight of land. Coastal states, of which there were many and usually in competition with each other, could readily develop a maritime culture based on wealth acquisition. This also enabled distant



exploration, conquest, and settlement. Such a European culture was initiated by the explorers/conquerors/settlers par excellence, the Vikings. The other continents are simply not blessed with such a similar profusion of peninsulas, inland seas and islands.

Hence the ultimate cause of European global hegemony, colonization and settlement was Europe's unusual, but human-exploited, geography. What lessons can we derive from this? One is that a nation's perceived power and influence are still measured at least in part in how well it can deploy its ships to the far corners of the world. When certain European nations cut back on their navies and hesitate to deploy overseas in harm's way, they discovering a corresponding loss of influence. Present-day China, on the other hand, after securing landward approaches through treatv cooperation, is now overturning millennia of inward-looking continentalism and developing a maritime vision and expeditionary capability. Chinese PLA Navy anti-piracy deployments to the Horn of Africa, including a naval base constructed in Djibouti, and deployments as far as Europe are only a start. Such deployments are part of an effort to achieve a blue water capability beyond their perceived "second island chain" out into the Pacific. It has been reported that the objective is to have "a true global naval force capable of operating anywhere in the world, similar to the U.S. Navy." An indicator of this objective is the PLA Navy's 2017 deployment to the Baltic Sea in Exercise "Joint Sea" with the Russian Navy.

Where do these developments leave Canada, which today tends to have its own continental, non-maritime outlook? If we wish to have more positive influence on maintaining our world trade-dependent prosperity, in safeguarding our three ocean approaches, in extending our security as far as possible out from our shores, in helping distant peoples in distress, and in exporting Canadian values to less developed places, then two things have to happen.

First, we Canadians must develop more of a "maritime consciousness" — as opposed to the "maritime blindness" of recent times. Even after the naval successes of the Second World War, Canadians

did not develop much sense of the importance of the maritime domain to their prosperity and security. We must come to appreciate how our prosperity and our positive influence on the world are so dependent on access to, and exploitation of the seas. Even so, changing a culture is hard to do. The impetus and vision must come from the federal government. If the Chinese can take the necessary steps to develop and expand their own maritime culture, then so can we.

Second, we must actively support the continued development and maintenance of a robust, expeditionary Navy, including the trained personnel, effective ships, marine warfare technology, and related in-house infrastructure necessary to exert influence on those aspects of the global security environment that matter to Canadians.

Let us not see the core of history pass us by.

The US Naval institute on Arctic Operations, Timothy J. Demy Ed. (USNI, 2019)

Reviewed by Gord Forbes

This book comprises 22 essays that have previously been included in the US Naval Institute Proceedings. The emphasis, as shown in the title, is US interests in the Arctic.

All of the essays, except three, were written between 2006 and 2018 by US Navy and US Coast Guard officers with a few written by civilian historians and policy makers. The majority of the works try to deal with the effects of climate change and its effects on Arctic ice. And all deal with the uses and exploitation of the Arctic by the United States. The main messages conveyed in these essays are:

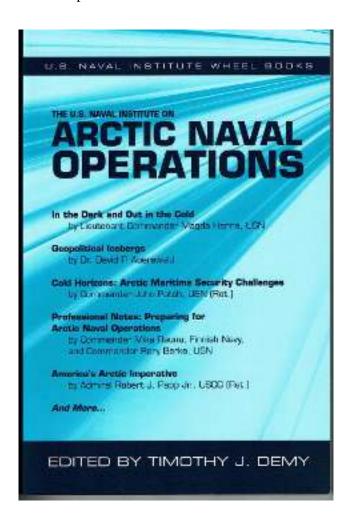
- The need for more American presence in Arctic waters:
- The need for the United States to ratify the United Nations Convention on Law of the Sea (UNCLOS) which remains stalled in the Senate;
- The need for military resources capable of operating in the Arctic by the US Navy and US Coast Guard, particularly heavy icebreakers for the Coast Guard;
- · Russian and Chinese interests and investments in

the Arctic; and

• The use of the Arctic for shipping.

One notable thing about this American view is the limited attention that is paid to Canada and its presence and existence as an Arctic nation. They do not, for instance, acknowledge that the Northwest Passage passes through Canadian territory. But there are some interesting sidelights to the above messages.

As many experts predict that the Arctic sea routes, the Northern Sea Route north of Russia and the Northwest Passage through the Canadian Arctic, will become busy trade routes, one article brings reality to this premise. This article titled "The Cold, Hard Realities of Arctic Shipping" argues that there are significant challenges that would not make such routes attractive to ship owners. Although these routes could shave over 4000 nautical miles off of journeys between Asia and Europe, it is time, including on-time arrival, that is important ship owners and their clients. The requirement for safe navigation and potential blockages would make the time factor problematic.



With the arrival of the first Arctic/Offshore Patrol Ship in the near future, there is an article that should be mandatory reading for those that man these vessels. Written collaboratively by two naval Commanders, one American and the other Finnish, "Professional Notes: Preparing for Arctic Naval Operations" provides a lot of useful ideas for preparing for and undertaking Arctic operations. It includes thoughts on ship and weapon design, challenges (and opportunities) in sailing and fighting in Arctic conditions and the best use of air resources such as helicopters and UAVs. The advice given is very practical and sensible.

There are two articles of historic interest. The first, "Flying over the Polar Sea" by Lieutenant -Commander Richard Byrd, USN, the first man to reputedly fly over the North Pole describes the preparation he made in planning his historic flights. The article includes the bases established for the journey, the types of plane chosen and why, the navigational challenges faced (it is not very easy to get a navigation fix at the pole) and how they were addressed, as well as the food that was chosen for the crew. The article was written and published in 1925 during the actual expedition.

The second historical article is a biographical piece titled "Rear-Admiral Peary, USN, Scientist and Explorer" which was written in 1922 by an associate and admirer of Robert Peary. Peary is credited with being the first to reach the North Pole by sled in 1909. The story tells a lot about the man and the work that he accomplished.

All in all, this is a very worthwhile book. It is well written throughout. One small complaint is the lack of any maps or illustrations showing where events in the articles were located. It is interested reading for those with an interest in the Arctic and should be necessary reading for Canadian naval officers as our involvement in the north grows.

Weapons of Desperation - German Frogmen and Midget Submarines of World War II, Lawrence Paterson (Frontline Books, 2018)

Reviewed by Fraser McKee

Considering there have been dozens, maybe hundreds

of post-war books on German battleships, battle cruisers and 'armoured ships,' of which they had but seven in total, none of them markedly successful, it is rather amazing more has not been produced about the almost 2,000 'small battle units' that came under control of their Navy's Kleinkampfverband in the Second War's latter days. While only modestly successful in actual operations against the Allied forces, and certainly in part as the title suggests, 'Weapons of Desperation,' they were from early 1944 until the war's end a major worry during the

Normandy and South of France landings and thereafter. Their threat, like mining, was their main contribution, reinforced by occasional successful attacks. Their very threat occupied a major portion of Allied naval forces operating inshore.

While some developmental research was undertaken in Germany. Particularly after the British raid X-craft on their battleship Tirpitz and the Italians' successes in the Mediterranean, it was only after the North Atlantic failure partial of their U-boat war in the late spring in 1943 that more attention and resources were applied to other at-sea optional attack possibilities – such as the 'small battle units' their

Kleincampverband. There wasn't much option.

This book is really an operational and administrative history of the seven vehicle types very quickly planned, developed, tested and made operational.

There are as well some notes on ancillary support services, such as commando frogmen and specially adapted single torpedoes. Paterson has obviously done much research to trace the origins and employment of each weapon. He carefully documents their flotilla assignments, then the difficulty of moving all of both the crews and weapons around Germany and occupied France right to the end due to Allied rail and road bombing. It is a very complex tale.

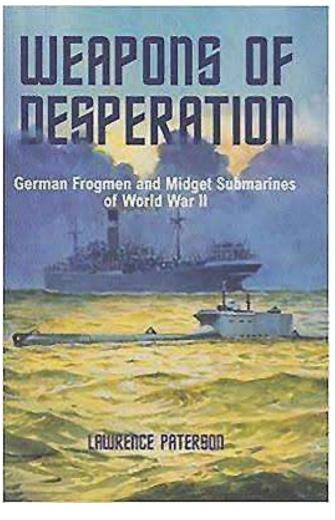
Although not given in Paterson's book, it helps if those various weapons covered are listed here, mostly

> taken from the web's 'U-Boat Net.' They were these, eventually, a tabular list making it less confusing to follow their deployment. That handy reference is really the only item missing in the history.

- 1. Neger: a one man internally ridden standard current G7e (electric) torpedo, with an operational similar one slung below that could be released and fired. The Neger could not dive below the surface. It was driven by the ridden torpedo's motor. After releasing underslung his torpedo at his target, the operator could return to base. 7.16m/23ft. in length. Weight about 5 tons. Operational range of about 30 nautical miles, 200 were built.
- 2. Marder: a development improvement of the Neger, using the same torpedoes, but capable of diving to 10 m/30ft.

with a buoyancy tank at the forward end of the ridden torpedo. Still a one man, short range operation. 300 were built.

3. Molch: a one man miniature submersible, carrying two torpedoes in scalloped indentations of the lower hull. Despite its electric motor, it was difficult to dive, so wasn't considered diveable. 10.8m/35ft. long. 50



knm range. 393 were built.

- 4. Biber: one man miniature submarines, with two torpedoes, an improvement on the Molch design. Had two engines, a Ford petrol engine for the surface, an electric motor when dived. Could dive to 20m/65ft. Range 100 knm. 324 were built. The only really operationally successful of the four miniature submersibles.
- 5. Hecht: a trial modeled after the Italian units employed to sink the RN ships at Alexandria in 1941. Carried one torpedo and a droppable mine in its bow section. Only 65 nm range. 3 were built. Not used operationally.
- 6. Seehund: a true 2 man mini-sub, modeled after the RN X-Craft captured after their 1942 attacks on the Tirpitz in Norway. Carried 2 external

torpedoes. Crew of 2. 11.9m/40ft. could dive up to 70m. A scaled-down U-boat, with petrol and electric motors, 7.7 knots.. Range

300 knm. 285 built. Made 142 sorties, achieved 8 sinkings.

7. Linsen: an explosive motorboat, modeled after the Italian's similar early model. Crew of 1; radio-controlled by an accompanying command boat. After the 'pilot' had aimed it at its target he abandoned the unit over the side. Contact spring-supported ring around the bows exploded on contact, sank the boat on hitting the target, it's 300 to, susequentially, 480 kg charge detonated below. Ford motor, up to 35 kts. 5.7m/19ft. 385 latest version built.

The German ability to identify a problem, design, build and test various solutions involving these small battle units is indeed an amazing acknowledgement of their organizational skills. All this under late war conditions of Allied bombing, mining and guerrilla resistance disruptions, shortages of materiel and even fuel is described. As it became obvious, even to the Germans that the Allies were soon to invade their Fortress Europe, that there was little possibility of designing and building further naval combat units other than the U-boats in hand, the Kriegsmarine were able to effectively set up an entire industry with whatever command support was required, from Admiral Karl Doenitz down. Supervising officers were transferred from other branches, even from the

Army's Wermacht for the Linsen explosive boats and some for the Neger and Marder one man units. Quick, and mostly rather inadequate, training units were established, operational flotillas set up both inland and close to invasion sites. Actual attacks made at Anzio in Italy, at Normandy, in the South of France. Whole flotillas of the smaller units were moved from inland builders to their potential operational areas, even from northwest France to the Mediterranean. Losses during these moves were substantial, partly due to lack of experience and testing in just the moving mechanics, but also due to bombing and Resistance track and bridge damage disruptions.

With the whole operation being rather run ad hoc, the story here becomes difficult to follow without setting up a series of flotilla 'flow chart' layouts. Here Paterson's index is well set out and complete. As a history of the operational efforts, minimal successes, continuing losses of individual pilots and crews, it is a sad tale of repeated desperate efforts to combat overwhelming Allied landing and expansion operations. There are occasions, particularly with the rather unsuitable Neger, Marder and Molch units that they became rather close to suicide missions, similar to Japanese units. Never intended as such specifically, and Paterson only implies it, these small craft were intended to be capable of returning to heir bases. Reading story after story of their widely varied operations one gets the impression that it came all too close to being indeed suicidal. Quite a number of the pilots of all these smaller one man units were transfers from the Army. The Wermacht, a few even from the SS. The officers commanding the flotillas were mostly ex-U-Boat or ex-S-Boat (e-Boat) experienced officers.

The first operation near the Anzio beach landings in April 1944 will suffice (pp.17-18) to illustrate what happened in almost every case with most of these weapons. An attack by 40 Neger was planned, but three were lost off their rail transport in shipping. Army artillery tractors were to be used for launching, but a regiment of local parachute troops had to be employed the night before to struggle to get the awkward units actually into the sea. 14 were abandoned when they fell over and became mired in the sand. The pilots had only a small wrist compass

and no light to navigate along to Anzio harbour. Only 10 ever reached the target area. Although modest claims were made of success, and a couple of ships hit and sunk, this was attributed even after to mines rather than these Neger units. The Allies had been forewarned through Enigma decrypts of potential use by the Germans of such vehicles, so were on the look-out anyway. Several of the Neger were captured plus a few of their pilots, confirming their use. A planned simultaneous attack by Linsen explosive boats was cancelled due to lack of sufficient training and detail launching arrangements unreadiness. It was rather typical of the secondary problems that tended to foul up the plans in many cases right to the war's end. Rail and road transport disruption became a major factor.

Operations against the landings at Normandy were rather more successful, with several ships sunk, from LST's to minesweepers and even two cruisers. Here the losses are given in the text, as well a narratives of surviving German pilots. One major claim, although valid, did not bother the Allied commanders overly: a Neger torpedo hit on a battleship. The problem was it was on the elderly French battleship Coubert, already sunk as part of the Mulberry harbour outer protection.

Paterson gives a multitude of examples of each weapon's intended employment, their modest successes, and usually a record of claims made by the all too few survivors. With more enemy records becoming available now, it would have helped assess the impact of these units on Allied operations to have more actual information on their losses, hence the real importance of this late careful research. Some claims of success by the pilots were true enough but missed by the Allied commanders who attributed them to other weapons. Thus even the threat of their use was not universally applicable.

A history well worth its shelf space at a modest cost.



Lieut. Robert Hampton-Gray VC DSC Memorial Project

BC Aviation Museum to Host Memorial for Canadian Navy Pilot

Victoria, BC – The BC Aviation Museum will host a memorial monument to the only BC pilot and last Canadian to be awarded the Victoria Cross, Lieut. Robert Hampton Gray VC DSC. Funded with an initial grant from the Naval Association of Canada Endowment Fund and public

subscriptions, the memorial will grace the entrance to the museum at the Victoria International Airport.

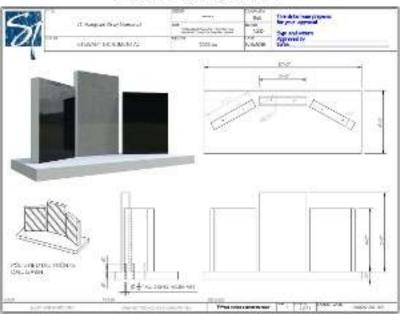
At the outbreak of the war "Hammy" Gray, who was born in Trail BC and attended school in Nelson, was completing his studies at UBC. He enrolled in the Royal Canadian Navy Volunteer Reserve as an ordinary seaman. Selected for pilot training, he earned his pilot wings and was commissioned as a Sub-Lieutenant. He served in several theatres of war from Royal Navy aircraft carriers. He was "Mentioned in Dispatches for his daring attack on the German battleship Tirpitz in 1944 and awarded the Distinguished Service Cross for aiding in sinking a Japanese destroyer in the area of Tokyo on July 28, 1945. Twelve days later, on August 9, 1945, he led an attack on Japanese ships in Onagawa Bay. Hit by anti-aircraft fire, he released his bomb to sink the destroyer Amakusa before his plane crashed into the bay. One of the last Canadians to die in the second world war he was posthumously awarded the Victoria Cross ... "For great valour in leading an attack on a Japanese Destroyer in Onagawa Wan, ... in the face of fire from shore batteries and a heavy concentration of fire from some five warships Lieut. Gray pressed home his attack, flying very low in order to ensure success, and although he was hit and his aircraft was in flames, he obtained at least one direct hit, sinking the destroyer. Lieut. Gray has consistently shown a brilliant fighting spirit and most inspiring leadership." He was 27 years of age.



Thirty years ago, the Japanese spectacularly approved the installation of a memorial to Lieut. Gray overlooking the bay where his remains lie. It is the only monument to a former enemy ever erected in Japan. As a result of the March 2011 earthquake and tsunami, the memorial was relocated and rededicated on August 24, 2012.

The project team is accepting tax deductible donations. Cheques with the memo "Lieut. Gray Fund" may be sent to the Naval Association of Canada Endowment Fund, Box 42025, Victoria, B.C. V8R 6T4, or donate on line at **canadahelps.org** (search Naval Association) The memorial is to be dedicated on August 9, 2020 just days before the 75th anniversary of the end of the second world war on August 15.





Lt. Gray memorial in Japan

Monument design





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

RAdm (NR) (Ret'd) Waldron Norman FOX-DECENT, CM, CMM, OM, CD**

Wiinipeg/Montreal Br's., 82 in Montreal 05/09/19. Jn'd UNTD as Cdt at Chippawa 01/55 and srv'd Stadacona, Naden, Oshawa and St. Therese for training. Prom A/S/Lt RCN(R) 07/57 thence Stettler'57, Patriot('58) and Sault Ste Marie('58) for training. Prom S/Lt (sen. 07/58) fll'd by Naden('59) for training. Prom Lt 07/59 thence Patriot ('60 and "61), Star("61), Scatari(i/c) ("62), Porte St. Jean(i/c) ('63 and ''64), New Waterford('65) and Port St Louis(i/c) ('65). Prom LCdr 01/66 fll'd by Qu'Appelle('69) and CFB Esquimalt in ''70. Prom Cdr 01/71, Chippawa (XO in '71 and CO in '73) and Porte Quebec(i/c) in '75. Prom Capt 01/76 thence Cdr TG 3 in '76, HMS Vernon (NCS Cse.) in '79, NCSO Vancouver in '81, NDHQ (SSO Nav Res) in '82 and MARPAC HQ in '82. Prom Cmdre 01/83 fll'd by Chippawa as Senior Naval Reserve Advisor to MARCOM in '83. Prom RAdm 06/87 thence NDHQ as Chief of Reserves and Cadets in '87. Ret'd 09/90. (BW, Canada's Admirals & Commodores)

LCdr Bruce Edwin HAYES, CD, RCN(Ret'd)

NAC-O, 88 in Ottawa 10/12/19. Br. President 2002-4; Bronze Medallion 2004. Jn'd *Carleton* as UNTD Cdt 01/53 and tsf'd to RCN as Cdt 09/53. Prom Mtd 09/54 thence *Magnificent* 09/54, *Iroquois* 09/55, *Outremont* 10/55 and *Niobe* (RN for trg.) 12/55. Prom A/S/Lt 01/56 and S/Lt same date fll'd by *St Laurent* 07/57. Prom Lt 03/58 thence *Lanark* 03/59, *Niobe*

08/60, *Sussexvale* (Cadet Trg Group) 05/61 and FOPC (Flag Lt) 01/64. Prom LCdr 01/65 fll'd by *St Laurent* (i/c 2/67-8/67). Ret'd in '69. Second career as co-owner Bytown Antiques.(*Citizen*)

Lt(ENG) Werner HIRSCHMANN

Toronto Br., 96 in Toronto 07/11/19. Jn'd Kriegsmarine Class 1940 and commissioned next year. Srv'd destroyers then U375, U612 and U190. POW Canada 1945-6 and UK 1947. Repatriated then emigrated to Canada in '52. Career in the computer and digital world and valued participant in naval history affairs.(FMcK)

LCdr Peter Vivian READER, CD, RCN(Ret'd)

NAC-VI, 94 in Victoria 25/11/19. Srv'd Merchant Marine and in RNR as S/Lt(E) (sen. 07/51) and later Lt(E) (sen. 07/52). Jn'd RCN in 09/53 as SSA Lt(E) (sen 07/53) thence Ontario 11/53. Confirmed RCN Lt(E) (sen. 07/52) fll'd by Naden (HMC Dkyd) 09/55 and NSHQ 07/57. Prom LCdr 07/60 thence St. Croix 09/60, SUPLANT 02/62, SACLANT 03/64, QHM Esquimalt and CFB Esquimalt. Ret'd in '70. Civ career with Coast Guard and Ferry BCCorporation.(RNDM)

Cdr Maurice Aikins (Migs) TURNER, CD*, RCN(Ret'd)

NACVI, 94 in Victoria 05/09/19. Br. President 1996-7. Bronze (2003) and Silver (2012) Medallions. Jn'd RCNVR as OS 05/43, commissioned as S/Lt 09/44 thence *Avalon* 12/44 and *Guelph* 12/44. Prom Lt 09/45 fll'd by *Drummondville* 09/45. Tsf'd to RCN

as Lt (sen. 03/46) thence *Prevost* (Staff O.) 03/46, *Stadacona* (Long "C" Cse. and qual "C") 01/47, *Ontario* 01/48, NSHQ 04/50, *Cornwallis* 10/51 and *Stadacona* 05/53. Prom LCdr 03/54 fll'd by *New Liskeard* (i/c) 08/54, NSHQ 06/56, *York* (RCAF S.C.?) 09/58 and *Cornwallis* 07/59. Prom Cdr 01/62 thence NSHQ 01/62, *Saskatchewan*(i/c) 12/64 and CFHQ 01/70. Ret'd 12/74. Civ career with Canadian Coast Guard. (RNDM)

Cdr Harold Russell WILCOX, CD, RCN(Ret'd)

NSNAC, 88 in Bedford, NS 04/12/19. Br. President 1987-88; Bronze ('89) and Silver ('92) Medallions. Entered Royal Roads 09/50 and desig RCN(R) Cdt 27/04/51. Tsf'd to RCN as Mid 01/09/52 fll'd by Ontario 09/52 and Magnificent 09/53. Prom A/S/Lt 01/54 thence Niobe (RN for trg.) 04/54. Prom S/Lt 10/55 thence *Micmac* 11/55. Prom Lt 05/56 fll'd by Cornwallis (Long "C" Cse. and qual "C") 09/57, Algonquin (CORTRON ONE Comm Off. - also sailed in Haida and Nootka) 11/58, FOAC (Flag Lt) 08/60, Stadacona 09/52 and Niobe (RN Exch. - srv'd HM Ships Sea Eagle and Tenby) 11/62. Prom LCdr 11/63 thence CFHQ 10/64, Flag LCdr to Cdr Cdn Fleet (srv'd Annapolis, Margaree and Cape Scott) in '66, Bonaventure in '67, Assiniboine(XO) in MARCOM HQ 03/70 and CFMWC 07/73. Prom Cdr 07/74 fll'd by MARCOM HQ 07/74, SACLANT 07/77 and CFB Hfx 08/81. Ret'd 11/81. Recalled to duty in '82 and srv'd as planning coordinator for RCN 75thAnniversary celebrations. Ret'd again in '85. (e-Veritas, SR.Chronicle Herald)

OTHERS

LCdr[Maj(AR)](Ret'd) Colin William Christopher BOXALL, CD

87 in Truro, NS 10/09/19. Jn'd RN as Cdt 11/52, prom A/S/Lt(O) 05/53 and S/Lt(O) same date. Tsf'd to RCN 06/55 and prom SSA Lt 05/66. Tsf'd to RCN(R) 06/59 as Lt (sen. 05/56). Tsf'd Air Force(R) in '75 and prom Maj(AR) 05/76. Srv'd HM Ships *Gannet, Devonport* and *Indefatigable, Shearwater, Scotian* and 420(AR) Sqn. (SR,*Chronicle Herald*,Canada's Naval Aviators)

Cdr Terence Edward CROSS, CD*, RCN

54 in Colorado Springs, CO 24/10/19. Jn'd as NCdt 05/09/91, prom A/S/Lt 09/91, S/Lt 09/92, Lt 12/94, LCdr 01/09 and Cdr 06/19.Srv'd CFOCS, NTDC(Pacific), Restigouche, Annapolis, Chaleur, Vancouver, Winnipeg, NTDC (Atlantic), Halifax, Cdn Fleet Pacific HQ, Ottawa, JTF 2010 Olympics, Task Force El Gorah, Cdn Expeditionary Force Command HQ, CNS Outside Canada (Europe), Joint Task Force North and NORAD. (WM, Citizen)

PO1 William DELANEY, CD*, RCN(Ret'd)

72 in Dartmouth, ns 28/08/19. Jn'd 07/65, prom AB 08/69, LS 08/69, MS 02/76, PO2 09/77 and PO1 12/82. Srv'd *Cornwallis, Stadacona, Shelburne*, CFB Hfx., *Algonquin*, CFFS Hfx., *Fraser*, FMG(A), *Athabaskan*, *Iroquois*, *Huron*, *Ottawa* and NDHQ. Ret'd 02/95. (SR,*Chronicle Herald*)

CPO1 Michael Laird DWYER, CD**, RCN(Ret'd)

57 in Halifax 06/09/19. Jn'd 03/81 as OS, prom AB 10/84, LS 03/85, MS 08/90, PO2 07/93, PO1 12/02, CPO2 11/07 and CPO1 09/15. Srv'd CF Recruit School Cornwallis, CF Fleet School Halifax, *Margaree, Assiniboine*, Naval Fleet School (Pacific), *Fraser, Athabaskan, Iroquois*, FMF Cape Scott, Naval Fleet School (Atlantic) and MARLANT HQ.Ret'd 04/16.(SR,*Chronicle Herald*)

CPO2(Ret'd) Clive Francis FOSTER, CD**

65 in Halifax 21/08/19.Jn'd 11/72, prom AB10/75, LS 01/77, MS 04/79, PO2 11/81. PO1 07/88 and CPO2 03/96..Srv'd CF Recruit School Cornwallis, CFFS Hfx., *Nipigon, Protecteur, Assiniboine, Toronto, Iroquois* and Naval Trg Development Centre (Atlantic). Ret'd 07/06.(SR,*Chronicle Herald*)

LCdr Gary GUYMER, CD*, RCN

55 in Ottawa 24/10/19. Jn'd as OCdt 03/91, prom 2Lt 05/91, Lt 04/92. Capt 01/95 and LCdr 05/11.Srv'd CFOCS, CFLS, 2 Service Battalion, 4thCanadian Div Support Petewawa, CFB Comox, CFB Esquimalt, *Protecteur, Calgary* and NDHQ. (WM)

LCdr Norman John Tosh HASLETT, CD, RCN(Ret'd)

87 in Bridgewater, NS 29/08/19. Jn'd RCN as OS 08/49, selected for OCTP and prom Cdt 04/51 thence *Royal Roads* 09/51, designated Cdt(L) in '53 and RMC 09/53. Prom S/Lt(L) 06/55, Lt(L) 09/56 and LCdr 09/64. Srv'd *York*, *Stadacona*, *Shearwater*, VS-881, *Scotian* (NSTC PG), CFHQ and AMDU Trenton.Rls'd in '72.(e-Veritas)

CPO2 Neil HESKETH, CD**, RCN

57 in Val des Monts, QC 18/10/19. Jn' 06/86 as OS, prom AB 12/87, LS 12/88, MS 07/98, PO2 03/03, PO1 05/06 and CPO2 01/14. Srv'd CFRC Hfx., CFB Hfx., CFS Mill Cove, CFB Greenwood, *Annapolis, Protecteur, Winnipeg*, CFB Esquimalt, *Athabaskan, Iroquois, Preserver* and NDHQ. Ret'd 05/07.(*Citizen*)

PO2(Ret'd) Joseph Terrance HEWITT, CD*

70 in Dartmouth, NS 17/09/19. Jn'd as OS 11/68, prom AB 04/70, Ls 09/72, MS 12/78 and PO1 12/88. Srv'd*Yukon, Algonquin*, CFS Mill Cove, CF Fleet School (Hfx.), *Ottawa*, NRS Newport Corners, *Assiniboine*, FMG (Atlantic), *Margaree* and Naval Fleet School (Atlantic). Ret'd 05/96.(SR,*Chronicle Herald*)

CPO2 Dennis Arthur HIPGRAVE, CD*, RCN(Ret'd)

95 in Halifax 20/08/19. Jn'd RN during WWII and tsf'd to RCN in '55. Prom PO1 05/69 and CPO2 11/72. Srv'd, inter alia, CFFS Halifax. Ret'd 01/74.(SR,*Chronicle Herald*)

PO1 Maurice Theodore KANASEVICH, CD*, RCN(Ret'd)

94 in Halifax 12/09/19. Jn'd RCNVR WWII and srv'd *Cornwallis*, *Stadacona* and *Quatsino*, Tsf'd to RCN and srv'd to 1950. Rejoined 05/59 as LS, prom PO2 09/65 and PO1 02/68. Srv'd, inter alia, *Fraser*, *Saskatchewan* and CFB Halifax. Ret'd 11/78. (SR,*Chronicle Herald*)

Lt(N)(Ret'd) Chester Guy KING, CD*

64 in Bedford, NS 11/04/19.Jn'd as OS 01/73, prom AB 97/76, LS 01/77, MS 01/79, PO2 02/81, PO1 07/85 and CPO2 08/88. CFR'd as Lt 02/90. Srv'd CF Recruit School Cornwallis, Fleet School (Hfx.), Saguenay, Huron, Margaree, NEU(A), CPF Project, NTDC (Pacific), Gatineau and FMF Cape Scott. Ret'd 01/00.(SR, Chronicle Herald)

PO1[WO(AVN TECH)] James Edward Harrison LOCKIE, CD*, RCN(Ret'd)

83 in Dartmouth, NS 27/08/19. Jn'd 08/55, prom LS 03/61, MS 03/61, PO2 05/70 and WO 12/79. Srv'd *Cornwallis. Shearwater, Bonaventure, Fraser. Skeena* and CFB Cold Lake. Ret'd 06/86.(SR,*Chronicle Herald*)

LCdr(O)(P) Donald Ernest MAXWELL, CD*, RCN(Ret'd)

93 in Victoria 10/11/19. Srv'd RN FAA (HMS Daedelus) 1944-45. Jn'd UNTD in '45 at Unicorn, tsf'd RCN as Mid 10/47, prom A/S/Lt(O) 01/49, S/Lt(O) same date, Lt(O) 08/50 and LCdr(O) 08/58. Qual "P" 09/58. Srv'd Stadacona, St. Stephen, Shearwater, Magnificent, Cayuga, RCAF Stations Centralia, Clairsholm and Saskatoon (Plt Trg.), MARCOM HQ, CFB Esquimalt, 825 Sqn., 826 Sqn., 881 Sqn. and VS-880. Ret'd in '73.(Citizen, Canada's Naval Aviators)

Lt[Capt(AERE)] Donald Joseph MacDOUGALL, CD**, RCN(Ret'd)

79 in Ottawa 24/08/19. Jnd RCN as OS 10/57, prom LS 03/64, PO2 07/69, WO 07/73, MWO 07/76 and CWO 08/80. CFR'd as Capt (AERE) 04/88. Srv'd *Shearwater, Bonaventure, Protecteur, Preserver*, NDHQ, CFB Cold Lake and CFLH Project. Rey'd 07/95.(*Citizen*)

Lt Isabel Margeurite PORTER (nee DAVIS), WRCNS

96 in Ottawa 28/09/19. Jn'd as S/Lt(SB) 09/44, qual "c" and reclassified S/Lt. Prom Lt 09/45. Srv'd *St Hyacinthe* and *Givinchy*. Rls'd 11/45. Widow VAdm

Harry Porter.(Citizen)

S/Lt William Gillies ROSS, RCN(R)(Ret'd)

88 in Sherbrooke, QC 07/10/19. Jn'd RMC 09/49 as RCN(R) Cdt (sen. 18/04/50). Prom S/Lt (sen. 05/52) on graduation RMC 06/53. Srv'd *Cataraqui* and *Carleton*. To Ret'd List in '58. (*Citizen*)

LCdr Thomas August SIGURDSON, CD, RCN(Ret'd)

92 in Ottawa 08/11/19. Jn'd UNTD as Cdt(S) 15/02/49 at *Chippawa* and prom RCN R) S/Lt(S) 05/51. Tsf'd to RCN, prom Lt(S) 05/53 and LCdr 05/61. Srv'd *Naden*, *Aldergrove*, *Oshawa*, *Cape Breton*, *Hochelaga*, *Fort Erie* (Sqn Sup O), NSD Sydney NS, FOAC and *Shearwater*. Ret'd in '71. (*Citizen*)

Lt Wayne Leonard Laird SIMMONS, RCNVR(RET'D)

100 IN Trenton, ON. Jn'd RCNVR WWII. Prom Prob S/Lt 12/44 and S/Lt 04/45. Srv'd *Cornwallis* and *Stadacona*.To Ret'd List in '45 and prom Lt (sen. 04/47) on that List. (*Citizen*)

PO1 James Douglas STUTELY, CD**, RCN(Ret'd)

79 in Colchester, NS 07/09/19. Jn'd as OS 01/59, prom LS 03/64, PO2 10/75 and PO1 06/83.Srv'd, inter alia, CFFS Hfx., FDU Atlantic, CFS Mill Cove, Yukon, Saguenay and *Ottawa*. Ret'd 09/85. (Sr,*Chronicle Herald*)

Cdr(Ret'd) Richard John SUMMERS, CD

61 in Victoria 29/08/19. Jn'd as NCdt at RMC 08/75. Prom S/Lt 05/79, Lt 05/82, LCdr 07/86 and Cdr 08/92. Srv'd Venture NOTC, *Mackenzie*, *Qu'Appelle*, CDLS(L) (RNEC), CFFS Halifax, *Preserver*, RMC(PG), NEU(P), CPF Project, CFCSC and NDHQ. Medical release 06/97.(e-Veritas)

Lt Peter Edward THACKRAY, RCN

76 in London, ON 31.07/19. Jn'd RCN as Cdt

attached *Donnacona* 09/62 and prom S/Lt 05/66 Qual "P". Srv'd *Shearwater* and *Bonaventure*. Rls'd in '69. (SR,*Chronicle Herald*, Canada's Naval Aviators)

CPO1 Bruce Thomas George TOBIN, CD, RCN(Ret'd)

92 in New Glasgow, NS 29/07/19. Jn'd RCN 03/46. Srv'd *Naden*, *Stadacona*, *Portage*, *Warrior*, *Magnificent*, *Bonaventure*, *Micmac*, *Crusader* and CDLS(L).Ret'd in '71.(SR,*Chronicle Herald*)

PO2(Ret'd) John Earle TRACEY, CD*

76 IN Middleton, NS 01/08/19. Jn'd 05/66, prom LS 12/67, MS 06/78 and PO2 07/80. Srv'dShearwater, Bonaventure, Athabaskan, Annapolis, Skeena, Margaree, Huron, Protecteur, Preserverand CFB Greenwood. Ret'd 12/93. (SR,Chronicle Herald)

LCdr Howard Carew WALLACE, CD*, RCN(Ret'd)

90 in Ottawa 11/19. Jn'd as RCN(R) Mid at *Scotian* 03/05/48 and prom S/Lt(SB) 05/50. Tsf'd 03/52 to RCN as Lt(SB) (sen. 03/54) and prom LCdr 03/62.Srv'd *Stadacona*, FOAC and NDHQ (Directorate Information Services). Ret'd 04/75. (*Citizen*)

LCdr Albert Clare WILLIAMSON, CD*, RCN(Ret'd)

90 in Dartmouth, NS 29/10/19. Jn'd RCN as OS in '45, thence OCTP and Mid 10/51, prom S/Lt(O) 10/53, Lt(O) 04/55 and LCdr 04/63. Qual "O" and "P". Srv'd *Warrior, Ontario, Shearwater, Magnificent, Bonaventure, Niobe* (RN Exchange) and VS-880. (PB, SR, *Chronicle Herald*, Canada's Naval Aviators)

