CANADIAN MILITARY JOURNAL



Guidelines for the Submission of Manuscripts

The Canadian Military Journal is the independent flagship quarterly publication of the Profession of Arms in Canada. The Journal publishes professional and scholarly articles, commentaries, opinion pieces, book review essays, and book reviews, as well as select Letters to the Editor.

It welcomes submission of manuscripts on topics of broad relevance to Canadian defence and the Defence Team, including, but not limited to, the profession of arms, security and defence policy, strategy, doctrine, operations, force generation, force employment and force structure, technology, procurement, military history, leadership, training and military ethics, institutional culture, recruitment, diversity, etc. Forward-looking pieces that present original concepts or ideas, new approaches to old problems and fresh interpretation are especially welcome.

The Journal welcomes submissions from members across all uniformed ranks. The Deputy Minister and Chief of the Defence Staff have delegated authority to approve manuscripts for publication in the Canadian Military Journal to the Journal's Editor-in-Chief, acting on recommendations of the Editorial Board. Serving members of the Canadian Armed Forces and civilian employees of the Department of National Defence need not and should not obtain prior clearance from their superior when submitting a manuscript.

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 - The second copy: An anonymized version with the author's name, contact information, and bio removed. Named and submitted as "Manuscript X Title-Anonymized"
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Canadian Armed Forces members of NATO's enhanced Forward Presence Battle Group Latvia use the cover of smoke screen to reposition during an engagement against 1st Fusiliers, Royal Regiment of Fusiliers, British Army, from eFP BG Estonia acting as opposition forces during Exercise BOLD FUSILIER in Tapa, Estonia on 13 October 2023.

Image by: Captain Joffray Provencher, eFP BG Latvia Public Affairs and Imagery Section, Canadian Armed Forces Photo



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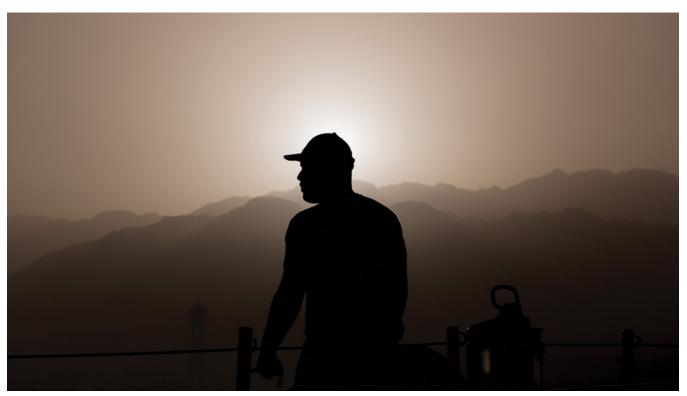
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As a bilingual journal, where citations are translated from their original language, the abbreviation [TOO] at the end of the note, which stands for "translation of original quote," indicates to the readers that the original citation can be found in the published version of the Journal in the other official language.



A member onboard HMCS Montreal operates on the fo'c's'le as the ship prepares to depart Agaba, Jordan during Operation PROJECTION on 12 September 2023.

Image by: Cpl Connor Bennett Canadian Armed Forces photo

Note from the Editorial Team

In June, the Armed Forces Council Executive approved the Canadian Military Journal's transformation plan, which is made up of three pillars: quality, accessibility, and integration. The first pillar strives to ensure that CMJ's content is timely, contemporary, and relevant. It aims to include a broad variety of topics and authors, while reaching a wider audience, and ensure all submissions are systematically reviewed.

The aim of the second pillar is an engaged readership, which includes greater visibility and engagement of CMJ with the Defence Team, stakeholders, and the public. The third pillar includes improved and expanded digital delivery channels and an information and knowledge management strategy to make CMJ's content more discoverable, searchable, and indexed effectively. To ensure CMJ delivers on the three

pillars, its editorial board is undergoing a wholesale overhaul and expansion, and the Oversight Committee is being transformed into a Strategy Advisory Board. The intent is to ensure CMJ's modernization and digitization to continue to deliver on its ministerial mandate: To further "intellectual debate among military professionals, public servants, researchers, academics, students, and the Canadian public." The diversity of

perspectives and ideas in this issue bears testimony to CMJ's commitment to this mandate.

We are delighted by the substantial increase in submissions, the editorial board's support in securing expert peer reviewers and their high-quality feedback, and the extent to which CMJ's contributors invest in revising their submissions based on input received. The thoughtful and diverse contributions to this issue manifest the exceptional payoff of this often lengthy and onerous process. In addition, for each issue, the editorial team strives to select contributions that represent and appeal to CMJ's diverse readership across uniformed members, trades, ranks, environments, genders, the Defence Team and other civilians, and topics. Apologies to the Air Force, which gets short shrift in this issue. Nevertheless, CMJ's editorial team is looking forward to a commemorative issue in honour of the RCAF's 100th anniversary in 2024.

"The Indigenous Warrior Code of Honour," by Dr. Robert Falcon Ouellette and Elders Dr. Winston Wuttunee and Melvin Swan, calls for a shift in the Canadian Armed Forces (CAF) ethos by embracing an Indigenous perspective, particularly Warrior Codes. It highlights the holistic nature of this Indigenous worldview, emphasizing spirituality, interconnectedness, and a balanced way of life. The Cree Warrior Code consists of four interconnected aspects and is complemented by the Seven Grandfather Teachings, which promote knowledge, humility, bravery, love, respect, honesty, and truth. The article illustrates how these principles were demonstrated in a historical conflict resolution between the Cree and Blackfoot tribes, showing how incorporating Indigenous wisdom into the CAF ethos stands to enhance morale and leadership values within the Canadian Armed Forces.

Dr. Max Talbot's innovative articles take up the Canadian Army's vision for land operations in the face of creative adversaries with advanced weaponry. "Forward Surgical Teams" introduces the concept of "Close Engagement," where combat teams will be agile and fluid in their movements, engaging in both kinetic and non-kinetic activities. To support this concept, the article emphasizes the importance of modern forward surgical teams to provide timely damage control surgery for combat casualties. It points out that the changing nature of conflict, with the proliferation of drones and advanced weaponry, makes the establishment of robust trauma systems challenging. As a result, forward surgical teams that are rapidly deployable, mobile, and adaptable become indispensable. The article addresses consequences for doctrinal innovation, technological advancements, and interallied cooperation in developing these teams to meet the demands of the evolving land operating environment.

"An AOPs That Can Fight?" by Dr. Adam Lajeunesse considers Canada's changing security landscape in the wake of Russia's invasion of Ukraine and explores the potential for enhancing the capabilities of its Arctic and Offshore Patrol Ships (AOPS) to adapt to this evolving environment. The author suggests that the shifting global security situation and the need to address hybrid threats necessitate upgrades to the AOPS, such as containerized weapon systems, UAV and AUV integration, point-defence missile systems, and expanded crew and training. Although the AOPS are unlikely to become frontline warships, these upgrades would broaden their mission capabilities by making them more adaptable to a broader range of security operations in North American waters and by addressing emerging challenges in a rapidly changing security environment.

Nova Scotians and naval historians will be drawn to "So Warm a Reception: Hybrid Warfare and the Naval Encounter at Tatamagouche." It touches on the role of the naval encounter at Tatamagouche, Nova Scotia as part of the 1745 Anglo-American campaign against Louisbourg. Lieutenant-Colonel Alan Anderson Lockerby emphasizes the importance of incorporating Canadian historical examples of hybrid warfare, such as the encounter at Tatamagouche, into our interpretation of modern hybrid warfare in CAF professional military education.

This issue also contains two articles specific to Professional Military Education. Adam Chapnick and Major Marshall Gerbrandt discuss distance learning and draw from empirical and personal experience to weigh the pros and cons of military education using technology. Both applaud military members for their adaptability to different learning techniques following COVID.

Adaptability is critical to resilience, which is the essence of "Finding Character Strengths in How Military Leaders Talk About Resilience." As part of CMJ's ongoing series on resilience, the article's authors studied episodes from the Resilience Plus Podcast featuring military leaders and identified ten character strengths that leaders tend to take up in the context of resilience. These strengths are key to how leaders navigate difficult situations and showcase specific qualities that inform leadership and resilience in the military.

Lisa Tanguay's article "Is It Time for the CAF to Focus on Mindfulness" explores on mindfulness as a subset of resilience. The author considers how mindfulness might help CAF leadership meet moral obligations and goals and situates mindfulness as a leadership development tool.

This issue concludes with "Governed Engagement: Why
The Department of National Defence Would Benefit from
Increased Governance of Its Defence Capacity and Institution
Building Efforts." Lieutenant-Colonel Boddy finds that Defence
Capability Building and Defence Institution Building (DCIB) activities are beset by too many stakeholders, limited coordination
and unclear priorities, which a steering committee within the
Defense Governance Framework (DGF) could address. This committee would facilitate the strategic value of DCIB, offer better
governance, and align efforts across DND/CAF. These activities
are strategically important to Canada's security interests, hence
the need to optimize scarce resources.

CMJ's editorial team values our authors' and readers' support: please feel free to reach out with your thoughts, feedback, and ideas. We are committed to bringing you quality content that informs, challenges, and inspires. In closing, we would like to welcome Deesha Kodai to the CMJ's production team. Her skill set and positive attitude are a most welcome addition after many months of staffing challenges, enabling us to return to a more predictable publication schedule.



Chief Marcel Moody and a member of the Council of the Nisichawayasihk Cree Nation speak with members of the Land Task Force in Nisichawayasihk Cree Nation in northern Manitoba during Operation VECTOR on 1 April 2021.

Image by: Sailor 3rd Class Megan Sterritt, Canadian Armed Forces photo

An Indigenous Warrior Code of Honour

DR. ROBERT FALCON OUELLETTE, CD, ELDER DR. WINSTON WUTTUNEE, ELDER MELVIN SWAN, CD

Dr Robert Falcon Ouellette, CD, is from Red Pheasant Cree Nation. He is a Warrant Officer with the Royal Winnipeg Rifles and has 27 years of service in the CAF. He was a Member of Parliament and is currently a professor at the University of Ottawa. He participates actively in Cree religious ceremonies including the Sundance, purification and healing ceremonies.

Elder Dr. Winston Wuttunee is from Red Pheasant Cree Nation. He served 12 years in the CAF, most notably in the Royal 22nd Regiment. In 2014 he received an Indspire award for his work as an Elder. He is also well known as a musician across Canada and uses music to bring people together.

Elder Melvin Swan, CD is from Lake Manitoba First Nation. He served 13 years in the CAF as a member of the Military Police. He was instrumental in getting Bold Eagle started in the 1990s in Manitoba. Melvin helps advice young people about the warrior way of life encouraging them in a life of service. Today he represents Indigenous veterans as the holder of the Canadian veterans' pipe.

In 1994, the Somalia Commission of Inquiry uncovered the fundamental failings of the profession of arms in Canada. Following that inquiry the Canadian Armed Forces undertook a major self-examination of its corporate military ethics and values. The result was the foundational Canadian military policy of Duty with Honour.1 Fifteen years later, the CAF has been faced with important moral and leadership challenges concerning sexual harassment it has become abundantly clear that it is an opportune time for additional perspectives on the Canadian Armed Forces Ethos. In this article, we propose that an Indigenous world-view be one of the fundamental perspectives. An Indigenous perspective on the warrior code is holistic in nature, spiritual, and represents a whole way of life versus the CAF ethos which has a bureaucratic and corporate structure.

Today, the profession of arms must be based not on blindly following orders, but on the thoughtful consideration of information and values to determine action. The ability to think and to consider different perspectives is important on a number of levels. The CAF warrior code must better ensure success in a variety of often complicated environments, fulfil the expectations of the Canadian public, and also provide simple values which soldiers can use to guide themselves in their daily lives at home and at work. Some may be surprised to learn that Indigenous peoples also have highly developed warrior codes.² These codes are rooted in perspectives which are holistic and spiritual in nature. It should be remembered that not all Indigenous peoples are monolithic. Within the Cree community, some will follow a more traditional lifestyle while others a subscribe to a more Western belief system. Many of the teachings in Cree culture are also hard to "live up to" because they require great personal discipline. While many people may hold these beliefs or know of their existence, not all are able to fulfil their obligations. The perspective presented here comes from a Cree world view, learned through lifelong teachings with Elders and an honest attempt to participate in traditional ceremonies.

An Indigenous Holistic World View

The Great Spirit or Great Mystery of North America is everywhere and in everything — mountains, plains, winds, waters, trees, birds and animals and the earth. Whether animals have mind and the reasoning faculty is not a doubt for the Blackfeet. For they believe that all animals receive their endowment of the power of the Sun, differing in degree, but the same kind as that received by man and all things animate and inanimate.³

The Old North Trail: Or, Life, Legends, and Religion of the Blackfeet Indians

The Indigenous matrix is made up of the ideas of constant flux and motion, existence consisting of energy waves, interrelationships, all things being animate, space/place, renewal and all elements being imbued with spirit. All matter and all beings have a dualistic nature of the animate and the inanimate. Gary Witherspoon writes, "The assumption that underlies this dualistic aspect of all being and existence is that the world

is in motion, that things are constantly undergoing processes of transformation, deformation and restoration and that the essence of life and being is movement."⁴

Perhaps the issues with the CAF ethos stem from how people view their lives. Work is work and home is home, and the two are separate. In the Indigenous world view these things cannot be separated: people must ensure that their values are integrated into their professional and personal lives.

[The] heritage of an indigenous people is not merely a collection of objects, stories and ceremonies, but a complete knowledge system with its own concepts of epistemology, philosophy and scientific and logical validity. The diverse elements of an indigenous people's heritage can only be fully learned or understood by means of the pedagogy traditionally employed by these peoples themselves, including apprenticeship, ceremonies and practice. Simply recording words or images fails to capture the whole context and meaning of songs, rituals, arts or scientific and medical wisdom.

Dr. Erica-Irene Daes, 1994
Sub-Commission on the Prevention of
Discrimination and Protection of Minorities,
Commission on Human Rights, UNESCO.

For veteran and Elder Melvin Swan, the philosophical foundations of a traditional Indigenous lifestyle are wholly spiritual.⁵ To understand Indigenous peoples one must have an appreciation of the holistic-inclusive Indigenous view, which is always taught by the Elders to ensure the proper protocols. The people have followed this way of life for so long by listening to Elders' stories and dreams. The objective is continual wellbeing, balance and synchronicity. The Saulteaux Elder Manitopeyes says, "[I]t is not enough for us to merely walk on the earth"; we must also be mindful about how we walk. This is a practical guide asking for balance between the social, civil and natural environments, applied on an individual basis and extended to include the family, the local community, and North American community protocol. The result is not an elusive, mystical concept, but survival with moral living in or through acceptance, learning and knowledge juxtaposed with a Western vision of immortality or paradise.⁶

Traditionally, Indigenous peoples perceived spirits in everything animate and inanimate, in plants as well as in creatures of the sky, ocean and earth. These spirits were respected and held in great reverence. It was a world in which everything was interconnected, with everyone and everything mutually interdependent for survival. A hunter, when killing an animal, would thank the animal for its sacrifice in providing sustenance to him and his family. For Friesen and Friesen, this interconnectedness



Shanley Spence, a Hoop Dancer from Mathias Colomb Cree First Nation, Manitoba, performs at the Last Post Ceremony at the Menin Gate in Ypres, Belgium on November 8, 2017.

> Image by: Corporal Brandon James Liddy, Canadian Forces Combat Camera

would require that the warrior understand the role he must play in the larger world and any future sacrifice he might be required to make for the greater good.⁷

Elder Winston Wuttunee has discussed how the way of a warrior is following protocol and respecting treaties.⁸ Treaties are important because each warrior is bound by treaty with creation and others.

Treaties are about respect and brotherhood. Indigenous peoples have always had treaties. The Cree and the Blackfoot made treaties using common sense. For example, there was to be no fighting in the winter, as it was too cold and not good to move children, women and the aged from their homes to different locations at that time. If one tribe made war, it sought out the other chief and explained the reason it was making war. Quite often, it was that the young warriors had too much energy, and they were bothering the whole camp. The old people knew that the best way to do things was to send them off to war against the enemy they knew. The two chiefs would talk and one would be given time to move the women, children and old people, and it worked for them. Later, in peacetime, they would talk about it.

The creation stories we tell about Wesakechak are about treaty. These world treaties are about water, earth, air, fire, and of course, the Great Spirit. For instance, when a child is born, the mother's water breaks and this signals that the child is to be born. He then gets his first breath of precious sacred air, and

he is a living human being. He is then wrapped in the warm hide and fur of an animal and joins the warmth of the fire and the life-giving milk of his mother. Soon he is playing with the other children outside on their own land, which happens to be Canada.

When the Creator finished creating the land, sea and air creatures, he called everyone forward and told them to ask for gifts they wanted to have for themselves. Thus, he made treaties with all life on earth. Many asked to serve mankind. They were warned about mankind and what he would be like as the best and worst of all creation. They accepted and understood his warnings. For their understanding and sacrifices, they were granted a place in the hereafter. They would and should be honoured by men, women and children in ceremonies, which Indigenous people still do to this day.

MP Robert Falcon Ouellette Hansard – House of Commons 9 May 2019

The anthropologist A. Irving Hallowell conducted a long term study in the 1930s and 1940s with the Anishinaabe of Manitoba at Berens River. In a brief sketch of Salteaux cosmology, Hallowell notes that there are two fundamental notions in order to explain the Ojibwa imagination, its concepts of Kitchi Manitou, and how they constructed their natural environment:

1) that everything in the universe "has an animating principle, a soul, and a body. Man has a ghost as well"; and 2) that natural

entities also have existing and corresponding spiritual "bosses" or "owners" which help guide animals and humans. Nabokov used the term *Weltanschauung* roughly translated as world view, and redefined it as "the cluster of assumptions and images that a given society shared about the nature of reality. He goes on to say, I see world view as being a general momentary, but evolving image, of how the cosmos is ordered. It provides humans with the means to react to their environment within that cosmos and dictates how that dynamic environment will react in return, thus enhancing their potential and their perceived objectives of success. Ye

For Battiste and Henderson, Indigenous spiritual teachings and practices "flow from ecological understandings rather than from cosmology." This ecology is not seen as a mass, but as a synthesis of multiple elements.¹³ Citing the work of Levy-Bruhl, Battiste and Henderson note that those multiple elements sustain a sacred living order, self-subsisting and independent of human will.¹⁴

This synthesis of multiple elements is a process which has occurred over time and has been influenced by multiple beings and spirits which have been involved in creating a global knowledge that goes back generations. An example of this is taken from fine arts and the ideas of pentimento and palimpsest. The first term refers to the layering of oils on a canvas and the second to a written composition in which previous drafts have been erased but traces remain. In both cases, earlier efforts can still be detected. The material that we perceive on the surface embodies and benefits from what has been understood by those who have experienced it, or have passed on the experiences of previous knowledge holders to the present knowledge keepers. It is a layering of successive knowledge.

Cree-Anishnaabe Warrior Code

This worldview of the Cree-Anishnaabe Warrior Code is important because, at its foundation, human beings are not one dimensional; they are spiritual beings. 16 Elder Swan says that a "warrior is not a full human unless they have an understanding of the interconnected nature of the world...they must have a humble comprehension of the spiritual, for without any spiritual teaching you can become lost." Swan relates his own experience in the Canadian Armed Forces where he tried to ignore the holistic understanding of what "full humans need" in order to "fit in." He feels that a warrior must have a vision of his life as a warrior in all spheres. You cannot ignore any part of your life. The home and the work are both important. It was only later when he embraced a more holistic and traditional vision that he was able to better cope with challenges faced in military life. This embracing of a traditional Indigenous warrior code was beneficial for Elder Swan's long term mental health and purpose in life.17

The Warrior Code

The warrior code "is the path of a warrior, it is a hard road to follow; where we must learn to protect, love, and care for our family, nation, and all of creation. We must develop ourselves in four principal areas of a true warrior in the metaphysical, our thoughts, the physical and in our deeds." Accordingly, the warrior code is composed of four connected ideas.

The Cree Warrior Code is made up of four ideas

The Metaphysical, Manitowi (spiritual).
Our Thoughts, Nistikwan (my mind).
The Physical world, Niyaw (my body).
Our Deeds, Isihcikan or Miyo-tôtamowin (good deeds).

The Spiritual

A warrior must develop an understanding of the unknown. All of creation is interconnected and holistic. Manitowi is life itself. We cannot ever truly understand the what or the why, but it is our duty to try, and to acknowledge those ideas that we do not understand. We must strive to honour our comprehension and develop our perception to its fullest. The world is wholly spiritual in nature, and we have a role to play within that world-view. We must honour the great mystery, for it is the land, the water, living beings, our ancestors, our family and ourselves. We must humble ourselves in all we do.

When we follow protocol, we are never alone. We acknowledge our ancestors who are there to stand with us. Our ancestors connect us to all of creation. We need to not only see beyond the mere physical, but understand that there are spirits in the water, land, animals and sky that are connected to all we do and believe in. We are often guided by dreams, visitations or a word. A dream may not be totally clear until special events lead you to be in the exact position, only this time you understand why you are there. I had a dream which I didn't understand at the time. A few years later, I found myself comforting a widow who was being blamed for her husband's tragic death. The sacred dream revealed her innocence as sacred words were spoken: "Ye who are without sin throw the first stone." Not another stone was thrown as the mourners' hearts and minds were opened. They took food to her, invited her to sit and eat with them and they comforted her."19

Elder Wuttunee

Our Thoughts

A warrior without thought does not exist. It is each individual's duty to develop their mind to their fullest capacity. Nistikwan is our perception of the world based on our own humble understandings. Every person is different, and that difference must be respected. Learning is the basis of a warrior, for knowledge allows a warrior to master the challenges of this world. Through knowledge, a warrior can impact the world and the people around them. An ignorant warrior is dangerous, for in their inability to see the true world, with full knowledge they will eventually bring dishonour to themselves, their ancestors, their family, and their nation.

The education and learning that a warrior receives is important not only for the individual but for the community as well. Basil Johnston writes that the community has a duty to train its members as individuals not so much for the benefit of the community (though that is also important), but for the good of the person. The men or women so trained have received a gift from the community which is to be acknowledged in some form. That form consists simply of enlarging their own scope to the fullest of their capacity for the stronger the warrior, the stronger the community. It is equally true that the stronger the community, the stronger its members.²⁰

The Physical

The warrior code requires the mastery of the physical body to the fullest capacity. Niyaw is an ideal that nothing should be neglected, and everything is interconnected. A warrior must be able to think, but also act, and it is the physical body which carries that burden. A warrior must be prepared to suffer and sacrifice their physical existence in the honourable defence of the warrior code. A warrior must ensure that their health, and, physical prowess are fully developed and pushed to their highest levels so that they are ready when called upon to protect through love their ancestors, their family, and their nation.

Our Deeds

The warrior code requires that the spiritual, thoughts and physical ideals be expressed in good deeds or good works. Miyo-tôtamowin means that our actions are even more important than our thoughts, because our actions are ultimately an expression of our mind. We must ensure that we honour the spiritual, master our thoughts and develop our body so that we are able to produce good deeds in all actions. In this our words are also important, for words are an expression of our spiritual, mental and physical bodies which impact others around us. Our words can lift, or they can destroy, therefore our actions must be clear and good to produce outcomes which respect our true selves.

"This world view of the Cree-Anishnaabe Warrior code is important, because at its foundation, Human Beings are not one dimensional; they are spiritual beings..."

The warrior code includes seven teachings which are told in a story about a young baby raised to have a deep and profound understanding of these Grandfather teachings. They offer further consideration to help with the development of a warrior in his thoughts and deeds. These Grandfather teachings were formalized by Elder Eddie Benton-Banai, a fifth degree Midewiwin, in *The Mishomis Book.*²¹

In a story recounted by Benton-Banai, in the beginning, after creation, the number of people in the world grew. The people were not strong and often died from their weaknesses. The Creator was very concerned and instructed seven Grandfather spirits to help teach and guide the people. The Grandfathers sent a helper among the people to bring back a person who was capable of learning how-to live-in harmony with creation. Six times, the helper attempted to find a worthy person. Only after the seventh attempt was a young baby chosen. He was chosen because he was innocent and his mind was untouched by corruption and the pain in the world.

The baby was brought back to the seven Grandfathers and they instructed the helper to show the baby all of creation and the four quarters of the universe. The lesson of this traditional story is very simple: we must begin very early with our children in instructing them with these teachings. Children have fully developed senses and are completely aware of what is happening around them. They also have the ability to communicate with the spirit world. Most of us are so removed from the spirit world, that we cannot communicate properly. Education is important from a young age to help guide people in the right path in life.

Before the baby started his travels, he was given a gift by each of the seven Grandfathers. These gifts are often referred to as the seven Grandfather teachings. The baby eventually grew, yet continued on his travels. Over time he encountered seven spirits who then taught him the meaning of the gifts.

All human beings and warriors must exemplify, to the highest possible standard, the seven Grandfather teachings.

- 1. Cherishing **Knowledge** is to know Intelligence.
- **2. Humility** is to know yourself as a sacred part of creation.
- **3. Bravery** is to face the foe with integrity.
- **4.** To know **Love** is to know peace.
- **5.** To honour all of creation is to have **Respect**.
- **6. Honesty** in facing a situation is to be brave.
- **7. Truth** is the understanding of the hard-work required to achieve all these principles.

The boy was taught by the spirits that for each teaching there was an opposite; evil is the opposite of good. The boy listened and studied each of these ideas so that he would be able to pass along this knowledge to his people when the time came.

Stories are important, for without stories we cannot touch the heart of a warrior. One must speak from the heart to be truly understood. There are many who try to teach using books and reading material, yet they do not try to feel. The warrior code can be taught only through actions and story.

A Warrior's Story

The warriors were primarily people and men of peace. They depended upon hunting for survival. The worth of a man was measured by his generosity and his skill in the hunting grounds, especially in riding horses and hunting the bison. Thee final test of the manliness of a warrior was not bloodshed, but his ability to provide for his community and family. War was embarked upon only as a last resort. The war path was only necessary to avenge an injury, either physical or moral, to oneself or one's brother. It was a matter of great pride to never let insult or injury go unpunished. Conflict was never begun because of desire for conquest or subjugation.

Long, long ago, the Cree near present-day Battleford were camping for the winter. It had been a long, cold winter, as sometimes occurs on the prairies. One fine March day a young warrior rode into camp with news that the Blackfoot were nearby in the traditional area hunting and taking many buffalo. The Cree and Blackfoot have a long history of war with each other. Their cultures are each unique and their languages are also very different. The young Cree men in the camp felt that the tribe's honour had been impugned by the incursion of the Blackfoot into their area. They wanted to defend their territory and ensure that proper respect would be paid to their people.

Kayâs, a lead warrior of the tribe, wanted to lead a war party against the Blackfoot. A certain level of protocol was required before this could occur. After discussion among the Elders, it was determined that there was no immediate danger. The Elders of the tribe had come together to have a larger discussion about why the Blackfoot were in their territory and how the people should react. Normally the Blackfoot should have come and asked permission to cross their territory, but they had not done so. After a long discussion the Elders decided that it would be appropriate to send a war party to fight the Blackfoot. It was decided that Kayâs would be the war chief because he had fought in many battles and was the most respected by other warriors.

Kayâs determined that he would take ten men with him to confront the Blackfoot. The reason ten were chosen was to reduce the number of possible deaths, but also to ensure that tighter control was kept over the warriors going to war. Kayâs then spent some time personally talking with the men he wanted to accompany him in the battle. While most men were happy to join, one warrior said he could not, due to hunting and family responsibilities. His wife had recently given birth and he felt he needed to be close to support his young wife. This was not a problem in Cree society, as no man would be questioned about his courage. It was known that each man had the freedom to choose whether they would participate in war and on what terms.

Kayâs then had several young men who had never gone into battle approach him requesting to participate. Among them, he selected three whom he felt would offer vitality, and seriousness and benefit from an opportunity to learn about the proper protocols of war and being a warrior. In the late afternoon Kayâs felt that he had ten warriors that would be excellent in the coming battle. Later that evening Kayas planted his war standard in the middle of the tribe. A number of warriors started to sing, calling the people to the centre of the village. When everyone had gathered, Kayâs started to pray and offer acknowledgement of what they were going to be doing the next day. After prayer, Kayâs recounted his exploits. He did this not to brag, as everyone knew of his excellence as a warrior, but simply to highlight the seriousness of the warrior code that he lived by. When Kayas was finished, all the warriors came forward one by one to tell of their exploits in battle. Then the young men came forward and spoke of their desire to follow in the path of the warrior. The younger men then danced as hard as they were able, in order to compensate for their lack of experience.

The whole village then joined the young men in dancing in order to honour the warriors. After a certain time, the dancing came to an end, and it was time for all the warriors to take their horses and leave for the coming battle. They all mounted their horses and the tribe honoured them as they left for battle. Two women

performed an ancient ritual in which they tried to stop the men and asked them to stay. The warriors refused and continued on their path. The two women then followed the men just outside the village where again they asked with great tears and cries that the men not go and that they stay in the village. Again, the men refused and indicated that they would follow the path of the warrior. Once outside the village, Kayâs led the men in riding towards where the Blackfoot would be found.

The warriors rode into the night, and towards dawn they stopped for a short rest and said prayers. Soon the sun was high, and it was a warm day. The warriors all felt awake and refreshed. They headed towards the Blackfoot. In the meantime, they had been spotted by a Blackfoot sentry who had informed his camp. Very soon, a group of Blackfoot warriors - the same number as the Cree warriors - rode towards them. The two groups stood 50 metres apart and they taunted each other. Eventually a young Cree could no longer stand the taunting and rode hard and fast towards the line. Just before reaching at the Blackfoot line, he turned his horse to the right and became a part of the horse. The Blackfoot shot arrows and tried to kill the young warrior. Incredibly, they could not kill him, so he turned around and rode in front of the Blackfoot a second time. Again, many arrows aimed and shot at him, and again, he was not killed. He rode back to his fellow Cree warriors knowing that he had proven his courage and his willingness to accept death.

A young Blackfoot warrior, named Ninohtîhkatânân could not stand that they had not been able to kill the Cree. He charged at the Cree line. As Ninohtîhkatânân neared the Cree, he also quickly turned to the side and became one with his horse. The Cree shot many arrows, but they could not hit, wound or kill the young Blackfoot. The young warrior then turned around and repeated his act of bravery. He too was unhurt. It was an incredible moment. After that, another Cree warrior rode towards the Blackfoot line and repeated the exploits of the other warriors. Warrior after warrior attempted to do the same exploit. The other warriors all tried to honestly kill and wound the other side. It is remarkable that no warriors were killed in those shows of courage and confidence.

Eventually Kayâs rode out and sang a song to honour all the young warriors from each side. At that, the battle ceased, and the two camps came together. Food was brought and the Cree explained that the Blackfoot were on their territory. The Blackfoot warrior Ninohtîhkatânân also talked about how they had not had much to eat that winter and had left their usual

"Just before arriving at the Blackfoot line, he turned his horse to the right and became a part of the horse. The Blackfoot shot arrows and tried to kill the young warrior. Incredibly they could not kill him, so he turned around and again rode in front of the Blackfoot, with many arrows being aimed and shot at him."

areas. Even though the Cree and Blackfoot were traditional enemies, it was decided to end the fighting for the next little while. The Cree understood that the Blackfoot would return to their traditional lands, but that they needed food for their families. After discussion, the Cree warriors agreed to allow the Blackfoot to remain there as their guests until much warmer weather had returned and they could return to their homes. The Blackfoot gave the Cree warriors gifts including knives and special medicines that they had obtained in trades with other tribes farther south and west. The warriors from both nations ate quite a lot and told and retold the stories of the day. They congratulated the young men like Ninohtîhkatânân and the three Cree youths who had become warriors that day.

This story highlights the warrior code. We can see clearly how the Cree warrior code is made up of four main ideas which were acknowledged throughout the story:

- 1. The Metaphysical, Manitowi (spiritual);
- 2. Our Thoughts, Nistikwan (my mind);
- 3. The Physical World, Nivaw (my body); and
- 4. Our Deeds, Isihcikan or Miyo-tôtamowin (good deeds).

All warriors must exemplify to the highest possible standard the seven Grandfather teachings. In this story, we learn about the seven Grandfather teachings which can be felt in the actions of the warriors:

- 1. Cherishing Knowledge is to know Intelligence;
- 2. Humility is to know yourself as a sacred part of creation;
- **3.** Bravery is to face the foe with integrity;
- 4. To know Love is to know peace;
- **5.** To honour all of creation is to have Respect;
- 6. Honesty in facing a situation is to be brave; and
- **7.** Truth is the understanding of the hard-work required to achieve all these principles.

The CAF is undergoing significant cultural change. This represents an opportunity for the CAF to become weaker or stronger. There are multiple different traditions native to

Canadian soil which offer a better and more holistic understanding of what it means to be a warrior. The CAF as a command and control bureaucracy has not been able to remove racism, sexism, discrimination and other ignorance from the hearts of many soldiers. This is a problem which, if left unattended, will remove the CAF from completing its mission objectives for Canada.

Perhaps current way of teaching the CAF ethos does not engage the spirit, the mind, the body and the actions of soldiers. If it cannot engage "the heart" it is bound to fail.²² The indigenous warrior code developed through deep conversations with Elders, represents a way of life which is still very relevant and which should offer a path for a true warrior culture in the hearts of the soldiers of CAF members.

Tapwe, (Truth)



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Canadian Armed Forces medical personnel take part in a simulated patient training exercise at the Role 2 hospital in Erbil, Iraq, on January 23, 2017.

Image by: Courtesy of Sgt Josephine Carlson, US Army

Forward Surgical Teams: Critical Assets for Future Land Operations

COLONEL MAX TALBOT

Since enrolling in the Canadian Armed Forces in 2006 as a direct entry orthopaedic surgeon, the author has deployed to multiple operational theatres with Canadian and allied surgical teams. Colonel Talbot has been a member of the Mobile Surgical Resuscitation Team since its inception in 2009.

Disclaimer: The opinions expressed in this article are the sole responsibility of the author and do not represent the doctrine, perspective, or policy of the Government of Canada, the Department of National Defence, the Canadian Armed Forces, or the Canadian Forces Health Services Group.

Introduction

In the future land operating environment, creative adversaries equipped with advanced weapons will challenge ground forces in engagements spanning the spectrum of conflict. In response, the Canadian Army proposes a vision—Close Engagement: Land Power in an Age of Uncertainty—in which combat teams will fluidly disperse and assemble to engage in kinetic and non-kinetic activities. To support this operating concept, modern forward surgical teams will be essential to provide timely damage control surgery for combat casualties. The current international security environment calls for the accelerated development of forward surgical teams to ensure their availability for contingency operations.

Combat casualty care in the future land operating environment

The outcome of wounded coalition service members improved considerably in recent conflicts, partly because of advances in combat casualty care. In Afghanistan and Iraq, the coalition established robust trauma systems composed of multiple medical treatment facilities. The transfer of patients to surgical facilities in a timely manner, often by helicopter, was a major determinant of survival. In these theatres, fixed medical treatment facilities located on large airbases became referral trauma centres and hubs for strategic casualty evacuation. The deployment of stationary field hospitals was a major Canadian contribution to these conflicts. Trauma systems reliant on large field hospitals and helicopters may be difficult to establish in the future land operating environment (FLOE).

Recent wars, notably in Nagorno-Karabakh and Ukraine, offer a preview of the FLOE. The proliferation of drones, sensors, missiles, and loitering munitions will allow future enemies to conduct deep strikes that degrade the ability to establish robust theatre trauma systems. 10 Attacks that cut the lines of communication of medical treatment facilities will restrict evacuation of casualties and resupply of consumables.¹¹ Direct strikes against medical assets may also occur. Indeed, deliberate attacks against medical facilities occur repeatedly in contemporary warfare despite legal prohibitions against the practice.12 Consequently, future field hospitals may need to be positioned beyond the range of some enemy weapon systems, thereby increasing the gap between the point of injury and surgical care.¹³ The loss of allied air supremacy would further compound these problems.¹⁴ In this context, forward surgical teams will be indispensable to ensure access to surgery within doctrinal timelines. 15 Despite their small size, properly used forward surgical teams have produced results on par with larger field hospitals.16

Attributes of forward surgical teams

Forward surgical teams can be promptly deployed, an important attribute to support an Army that "will continue to be organized, trained, and equipped in order to be rapidly deployable in scalable packages." For example, several forward surgical teams were immediately required to support the invasion of Afghanistan. In October 2001, a US Army forward surgical team deployed to cover operations in northern Afghanistan and was the only surgical asset in that sector until a field hospital was established two months later. In November, a US Navy team composed of medical personnel from different units was deployed to camp Rhino, in Helmand province, for a six-week period. In December, a second US Army team deployed to Kandahar Airfield after its seizure by coalition forces.

The utility of rapidly deployable surgical teams is also illustrated by two recent French operations. In 2013, France deployed 1,600 personnel to the Central African Republic to execute a stabilization operation endorsed by the UN Security Council.²¹ An *antenne chirurgicale* was deployed immediately and became operational within hours of its arrival in theatre.²² The team treated several casualties over the following three months, including 36 patients with traumatic injuries.²³ Earlier that year, *antennes chirurgicales [surgical unit]* also played an essential role in Operation SERVAL, the initial phase of French operations in Mali.²⁴ These examples illustrate the importance of rapidly deployable forward surgical teams. Their small footprint is a significant advantage when combat and support units are competing for limited strategic airlift.²⁵

Forward surgical teams are highly mobile. Their ability to follow closely behind manoeuvre units allows them to stay close to the point of injury, where they can deliver maximal surgical effects.²⁶ During the 2003 invasion of Irag, the US Navy, US Army, and British Army all used forward surgical teams to follow the advance of manoeuvre units into Iraq from the South.²⁷ The teams moved repeatedly on short notice and performed damage control surgery on severely wounded casualties before their transfer to a higher echelon of care.²⁸ In the north, a US Army forward surgical team was part of a combat jump on an Iragi airfield in the early days of the invasion.²⁹ Part of the team parachuted with the initial assault force to provide an immediate surgical capability.³⁰ The full team then supported the capture of Kirkuk, 110 km to the south, by a combined force consisting of special operations forces, elements of the 173rd Airborne Brigade, and Kurdish militias.³¹ The initial phase of the 2003 Iraq War remains a rare example of modern forward surgical teams employed doctrinally in a large scale mechanized operation.

Because of their small footprint, forward surgical teams an easily operate in ad hoc locations.³² In urban warfare, buildings, tunnels, and bunkers can be used as shelter for medical teams.³³ For example, during the Syrian Civil War small civilian surgical teams operated in a dispersed fashion within cities to increase their survivability.³⁴ For operations in coastal regions, naval forward surgical teams can be used on ships or ashore.³⁵ During the Falklands War, an embarked Royal Navy surgical support team was moved to shore on short notice because of the threat posed to surface vessels by the Argentine Air Force.³⁶ The surgical team's small size allowed it to be loaded rapidly in a landing craft.³⁷ Once ashore, the team linked up with other medical elements, including Army forward surgical teams, and settled in an abandoned building where numerous casualties were treated over the next three weeks.³⁸ The ability of forward surgical teams to move and adapt constantly may increase their survivability in the FLOE.39

"In lower intensity operations, forward surgical teams provide economy of force compared to larger field hospitals."

In lower intensity operations, forward surgical teams provide economy of force compared to larger field hospitals. For example, New Zealand deployed a forward surgical team to support a force of 1,200 personnel in a remote area of East Timor. The isolated location made surgical coverage necessary despite a relatively low level of violence. Most surgical activity consisted of assistance to the local population for conditions unrelated to the conflict. On a larger scale, the coalition trauma system in Iraq was based exclusively on small surgical teams between 2014 and 2016. Economy of surgical force will be essential to enable the simultaneous lines of operations envisioned in Canada's national defence policy.

Doctrinal innovation

The FLOE may prove especially challenging for small medical teams faced with a high volume of casualties, restricted patient evacuation, and limited resupply. These problems can be alleviated by doctrinal innovation.⁴⁴ Important concepts to guide innovation include prolonged casualty care and situational triage. Prolonged field care involves the delivery of an expanded spectrum of care by medics or primary care providers when casualty transfer to a surgical facility is delayed.⁴⁵ This construct should be extended to forward surgical teams, who may also be unable to evacuate patients to a higher echelon of care. 46 Prolonged casualty care in a forward surgical facility may involve follow-on surgical procedures after the initial damage control surgery and extended critical care support.⁴⁷ It may require an enhanced holding capacity. 48 Situational triage considers operational factors, such as logistic support and the preservation of combat power, in the allocation of medical resources.⁴⁹ In high-intensity operations, it may involve giving a higher priority to service members with relatively minor injuries and the potential to return to combat. 50 The implications of situational triage and prolonged casualty care at the forward surgical team level deserve further reflection. They may require subtle alterations in equipment, personnel, and training.

Additional features to consider include modularity, independence, and critical care transport teams. Divisibility into smaller components increases operational flexibility. In Afghanistan, US Army forward surgical teams were successfully split into subunits to cover separate locations.⁵¹ Recent iterations of allied forward surgical teams have incorporated a modular approach to enhance flexibility in this manner.⁵² Forward surgical teams should be able to operate independently from a field hospital to allow for solo deployments to low-intensity environments. Finally, an organic critical care transport team to evacuate patients on platforms of opportunity would provide more options for patient movement in contested environments.⁵³

Technological innovation

Advanced technologies may offset the shortcomings of small surgical teams by improving triage, logistics, and communications.⁵⁴ Most of these technologies will depend on the enhanced connectivity envisioned for Close Engagement.55 Sensors and artificial intelligence may improve medical situational awareness and decision making across an entire theatre of operations.⁵⁶ Soldier-based sensors may soon allow physiological monitoring of casualties starting at the moment of injury.⁵⁷ In addition, research suggests artificial intelligence can accurately determine which patients require emergency surgery or blood products with only the basic information available at the point of injury, such as vital signs and wound location.⁵⁸ The convergence of these technologies may eventually improve trauma system performance by matching supply and demand for surgery in real time to avoid overwhelming small teams with limited capacity.⁵⁹ This would be useful in high-intensity conflicts where the rate of casualties could easily overwhelm human decision makers.60

Limited supplies, notably of blood products, restrict the ability of forward surgical teams to hold patients for extended periods. Uncrewed aerial vehicles, parachutes, and gliders may provide alternative resupply options in the future.⁶¹ Reusable fixed-wing drones that parachute small payloads have already been established as a reliable method of blood product delivery.⁶² Vertical take-off and landing or multirotor drones would be ideal to move medical supplies in an urban battlefield.⁶³ Parachute resupply is another option, especially after recent research confirmed the integrity of red blood cells after airdrops.⁶⁴ Small precision gliders, currently in the early stages of testing, may also become viable resupply vehicles.⁶⁵ These emergency resupply methods have the potential to sustain prolonged casualty care by forward surgical teams until patients can be evacuated safely during periods of air superiority.⁶⁶

Finally, telemedicine allows remote experts to advise medical personnel faced with situations exceeding their usual scope of practice. For example, teleconsultation is advised for non-neurosurgeons contemplating a decompressive craniectomy. A video connection with augmented-reality graphics can facilitate such complex surgical procedures. Forward surgical team clinicians may occasionally benefit from telemedicine to perform advanced procedures or to lighten their cognitive load.

Advanced technologies may be useful in some circumstances but may pose serious risks when facing an enemy with sophisticated electronic warfare capabilities.⁷⁰ Technology will never replace a solid base in resuscitation, surgery, and tactics.⁷¹ Excellence in these areas will always be the foundation of success for small surgical teams.⁷²

Forward surgical team development

The Canadian Forces Health Services Group has acquired considerable operational experience with far-forward assets since the creation of the Mobile Surgical Resuscitation Team and the Canadian Medical Emergency Response Team.⁷³ In addition to these planned initiatives, a deployed American-Canadian team recently improvised a containerized surgical suite transported by armoured tractor-trailer.⁷⁴ In aggregate, the CAF's extensive in-house expertise allows for the rapid development of forward surgical teams.

Interallied cooperation, operational research, and wargaming can further assist the evolution of forward surgical teams. The design of French and American forward surgical teams—recently updated after decades of operational experience—provides valuable insights for the CAF.75 Collaboration with allies is also needed to ensure interoperability.⁷⁶ Operational research methods can help developers achieve an optimal balance between the team's capacity, composition, and mobility. The employment of forward surgical teams across the spectrum of conflict can be explored through wargaming, which would allow for experimentation with radical concepts. For example, adaptive dispersion could be applied to surgical assets.⁷⁷ A network of dispersed forward surgical teams could evacuate patients directly to distant Role 3 facilities in secure areas in order to minimize the number of static medical facilities within range of enemy weapon systems. Ultimately, the integration of forward surgical teams in realistic army exercises will be needed to refine the Canadian forward surgical team concept.⁷⁸



Members of the surgical team of the Role 2 enhanced hospital care for a simulated patient during Exercise COLLABORATIVE CanUK at Canadian Forces Base Kingston on September 20, 2015.

Image by: Cpl Mark Schombs 4 CDSB Garrison Petawawa Imaging

Conclusion

In Afghanistan and Iraq, the CAF excelled at operating stationary field hospitals. This core competency will always be important but the evolving land operating environment also requires mobile surgical assets. Consequently, forward surgical teams are urgently required to support the Army's Close Engagement vision. Their design can be informed by recent historical experience but needs to be adapted for the modern battlespace. Experimentation with novel concepts and technologies is essential to develop resilient and survivable Canadian forward surgical teams.⁷⁹

Notes

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A view from above of HMCS MARGARET BROOKE taken from Danish helicopter Westland Lynx MK 90B, N-978 during Operation NANOOK north of Newfoundland and Labrador Canada — Atlantic Ocean, August 6th, 2022.

> Image by: Cpl Kuzma, Canadian Forces Photos

An AOPS That Can Fight? Patrol Ships for an Increasingly Dangerous World

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Russia's invasion of Ukraine marks an important historical turning point, reframing the global security dynamic and changing the way Western nations perceive their world and defence obligations. The shift in Canadian foreign and security policy has been somewhat predictable: grand statements of purpose, coupled with parsimony and hesitation. Addressing the House of Commons in March 2022, Finance Minister Chrystia Freeland delivered what the CBC described as a wartime speech. "Putin and his henchmen are war criminals," declared the Minister. "The world's democracies — including our own — can be safe only once the Russian tyrant and his armies are entirely vanguished. The world's dictators should never mistake our civility for pacifism. We know that freedom does not

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come for free, and that peace is guaranteed only by our readiness to fight for it." Yet, nearly two years into the conflict, the cost of rebuilding the Canadian Armed Forces has led to second thoughts, with the Department of National Defence now contributing to government-wide budget cuts.

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

These vessels were certainly never intended to be warships and are not designed for combat; however, as NATO finds itself facing an openly expansionist Russia, alongside a more aggressive China, a broader understanding of the AOPS' mission is probably in order. This notion was first explored in depth by Rob Huebert in a 2015 article in the Canadian Naval Review. There, Huebert asked whether the AOPS "as currently configured" really provided Canada with the "necessary security in the Arctic." Given their limited combat capability, Huebert asked, could the ships be better outfitted to hedge against potential security crises that might emerge over the next 25 to 40 years? His answer was that such "enhancements" — including a larger gun and modular weapons systems — were both possible and necessary to provide a "more robust combat capability."⁴ In making that suggestion, Huebert was responding to Whitney Lackenbauer, who had penned an article in the previous edition of the Naval Review, arguing that such militarization was wasteful and inappropriate, given the low probability of military conflict in the Arctic. Instead, Lackenbauer suggested that the existing constabulary philosophy remained appropriate, writing: "Canada's whole-of-government approach, designed to anticipate, prepare for and respond to non-combat security and safety scenarios, should not be hijacked by a retreat to Cold War thinking."⁵ Yet, with NATO now potentially facing a new Cold War, Huebert's warnings seemed precinct and a reconsideration of the AOPS' role may be in order.

The AOPS were conceived and designed as constabulary vessels with a whole-of-government support mission.⁶ Never

intended to be combatants, the ships are armed with a small, BAE Mk 38 25mm gun, enough for patrol duties focused on civilian traffic though hardly sufficient for higher-intensity conflict with a state adversary. This concept of employment made sense and stemmed not from any naivety on the RCN's part with respect to the dangers lurking in the global geopolitical system, but from a sensible appreciation of the regional threat environment and the RCN's priorities and requirements. In the Arctic. Canadian defence policy has consistently accepted a security environment defined by low-intensity safety and security threats, requiring light armaments for constabulary duties only. This was always sensible policy and, even considering the current war in Ukraine, that assessment probably remains an accurate perception of the threats that the RCN will encounter in the North. Recent assertions that conflict with Russia might spill over into the Canadian Arctic, in a way that leads to combat operations, are almost certainly exaggerations.⁷ As one Canadian Army officer guipped about the Arctic in the 1940s: "there's nowhere to go and nothing to do once you get there."8 Simply put, there is still nothing of *military strategic* value in the North American Arctic that might tempt a Russian incursion, or lead to naval combat along the Northwest Passage.

The AOPS' light armament and constabulary design was also a result of the Navy's limited resources. Combat systems were minimal not because the RCN was unconcerned by the hard security threats on the horizon but because it needed to concentrate its resources to meet those threats. Adding vertical launch systems, a large-calibre gun, and integrated fire control radars would have been an expensive luxury for a ship whose heavy ice-strengthening, civilian construction standards, and limited speed would always keep it from being a capable warship. Instead, the design philosophy was to keep the vessels as inexpensive and focused as possible to husband resources for the Canadian Surface Combatants. These next generation frigates are the purpose-built warships that will provide the Navy with an uncompromised combat capability. Adding combat systems to the AOPS could have reduced funding for the CSC program, ironically reducing the RCN's potential combat power over the longer term. Yet, those ships are behind schedule, with a decade to go before delivery. The Russian threat to Canada and NATO exists today.

Despite his general prescience, Huebert's focus on the AOPS as potential *Arctic* warships remains misguided. Indeed, a very common problem with discussions of the AOPS' capabilities is that they are rarely considered outside of their Arctic employment and are too often boxed into that regional framework.

"In an extended great power contest with Russia, the AOPS' most effective contribution will still be as support and patrol ships."

While the AOPS will probably never be more than constabulary ships in the North, they are still large, capable platforms well suited to global operations in the offshore environment. In this often-overlooked global role they can do more. To return to Huebert's original assessment, the RCN could invest a modest amount to turn the AOPS into vessels with capabilities more in line with comparable allied Offshore Patrol Vessels (OPV). Rather than Arctic-focused combatants, the AOPS should be seen as adaptable OPVs capable of defending the sea lines of communication and performing a wider variety of defence tasks — while also possessing an Arctic capability.

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

In the event of outright war, Canada and its allies will need to sweep the seas of enemy flagged merchant vessels, both to deny them to the adversary and to prevent those ships from conducting surveillance or other hybrid warfare tasks. While not armed for high-end combat, the AOPS' 25mm gun will enable the ships to comfortably monitor or interdict Russian "civilian" vessels functioning as Electronic Intelligence (ELINT) collection assets. During the Cold War, the Soviet Navy deployed these Auxiliary General, Intelligence vessels (AGIs) on a regular basis, to the point that they became a common feature in North American waters. As is the case with China today, Soviet fishing vessels were also deployed as hybrid state assets, causing the RCN serious concern throughout the Cold War, and particularly

during the Cuban missile crisis. The Russian Navy has not relied as heavily on such assets, but they do still appear, and may grow in number as geopolitical tensions rise.¹⁰ Surveillance of such vessels would be an important and time-consuming task, and the AOPS will offer the RCN a more cost-efficient solution than a frigate.¹¹ During a conflict, the RCN would also require an armed presence to interdict such hybrid threats: not only ELINT vessels, but also unarmed trawlers and hybrid warfare vessels tasked with laying mines or severing crucial trans-Atlantic cables.¹²

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

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

The most popular surface warfare weapon being deployed in this manner is the Naval Strike Missile, which is now one of the standard anti-shipping weapons in the US Navy. This, and similar weapons, carries its own guidance system based on GPS, inertial navigation, and passive electro-optical/infrared sensors to independently acquire targets, or receive targeting information from outside sources, permitting deployment on vessels like the AOPS. Indeed, the extended range of modern antiship missiles means that most would never be fired at a target within radar range of the ship itself. These are not necessarily one-size-fits all additions. The height of a Mk 41 VLS, for instance, may make it an awkward fit, while a high-end weapon like the SM6 would require a new fire control system, representing a major addition. Still, the move towards containerization offers clear opportunities if the right systems can be adapted to the AOPS' space and layout.

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

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

Given this persistent weakness, the AOPS would never be deployable into warzones. They would, however, be able to manage the hybrid security/defence tasks in the North Atlantic and the North American littorals, where hostile combatants are unlikely to materialize. In support of that mission-set, a defensive system such as the American SeaRAM could also be installed with minimal additions of new sensors and combat management systems. This kind of point-defence missile system is designed to work against the type of limited missile attack from hybrid vessels that an AOPS may experience in the relatively uncontested waters of the North Atlantic or Pacific.

Adding an anti-submarine warfare (ASW) capability to the AOPS is another consideration which may arise in extreme situations. Dating back to 1939, the RCN's focus has been on ASW, with the postwar Navy born from its escort duties "Given this persistent weakness, the AOPS would never be deployable into warzones. They would, h owever, be able to manage the hybrid security/defence tasks in the North Atlantic and the North American littorals, where hostile combatants are unlikely to materialize."

convoying vessels across the North Atlantic. Today, the fleet's Halifax-class frigates are optimized for that same task. A renewed cold war — or its sudden escalation into combat — would once again see the Navy stretched to guard those same sea lines of communication. Slow and noisy, the AOPS are not built for such tasks.²² The ship has a top speed of 17 knots and poor maneuverability in the open ocean compared to most warships, limited by a hull form designed to operate in ice.²³ In every respect, the AOPS make poor submarine hunters or convoy escorts. Still, necessity tends to push aside questions of optimization; the corvettes used by the RCN to fight the Battle of the Atlantic were hardly ideal platforms.

As an ASW platform, the ships' main asset is its ample deck space, from which it can launch a CH-148 Cyclone helicopter. A versatile and highly capable ASW aircraft, the Cyclone can carry two lightweight torpedoes, passive and active sonobuoys, as well as a powerful low-frequency tethered active sonar — a system that has successfully tracked Victoria-class submarines during wargames.²⁴ While that capability is a significant strength, it is far from optimized for combat. While AOPS were designed to land a heavy aircraft like the Cyclone, it was assumed that standard operations would employ only a light helicopter for ice-reconnaissance. That, and the pressing need to keep costs low, meant that the ships were built for, but not with, the Recovery, Assist, Secure and Traverse system (RAST) or Helicopter Hauldown and Rapid Securing Device (HHRSD) systems needed to handle large aircraft in anything greater than

sea state three.²⁵ The ships also carry only enough aviation fuel for 71 hours of flight operations.²⁶ Turning this ASW capability into something usable in a crisis would be possible, but would require some upgrades.

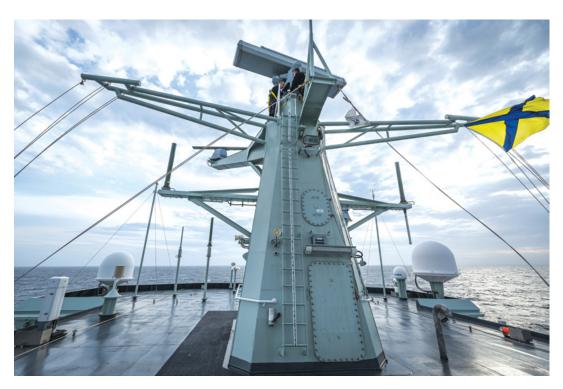
Outside the embarked helicopter, an AOPS' onboard ASW capabilities are non-existent. That too could evolve with additional bolt-on or containerized systems. That possibility was at least hinted at by HMCS Harry DeWolf during Operation Nanook 2021. While operating in the Northwest Passage, the ship hosted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

In monitoring the underwater environment, AOPS could leverage new advances in autonomous underwater vehicles (AUV), launched from the ships' 20-ton crane. These systems are evolving rapidly, with many designed as extended sonar systems, tying information back into a mothership. Canadian designed AUVs have already demonstrated ranges in excess of 2,000 km,²⁸ and an AOPS could serve as a hub for a distributed network of AUV and surface 'wave gliders,' recovering these assets and transmitting data to other platforms, like Canadian

or allied submarines. NATO navies have been testing this concept for years and a system of this type was put on display during the 2020 *Dynamic Manta* exercise in the Mediterranean. There, NATO's Centre for Maritime Research and Experimentation employed AUV and surface sensor systems in a mock hunting exercise to locate 'Russian' submarines in coordination with Canadian and allied surface ships. The communications and command challenges of using extended range AUV remain considerable, given that such drones must surface in order to make contact and receive instructions. As such, this remains a longer-term possibility, contingent on new research and development, though a promising one.

While not designed for fitted weapons systems or drones, AOPS are flexible ships. Each has room for up to six sea containers, with tiered deck space that would allow for the deployment of these systems without encroaching on the ship's helicopter flight deck. Built to accommodate containerized laboratories and hydrographic equipment, the ships have all the connection points for power that could readily accommodate the new additions without invasive renovations or electrical work. Many of these new weapon systems or sensors would need to be adapted but integration would be facilitated by the versatile nature of the ships themselves.

Enhancing the AOPS' surface warfare and ASW capabilities would also require additional training and a larger crew, since each new system requires dedicated operators. Luckily, the AOPS are large vessels with space to support other government partners and scientific personnel. In a crisis, or on missions



Communication
Technicians onboard
HMCS HARRY DEWOLF
perform a maintenance
routine on a radar, while
on route to participate
in Operation CARIBBE on
8 April 2022.

Image by: Canadian Armed Forces photo requiring additional capabilities, these add-on teams could be supported with relative ease. Assembling these teams would be more difficult given the RCN's current personnel shortages. Indeed, the human resources component may prove more challenging than the technical adaptations — though that is a separate subject entirely.

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

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

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

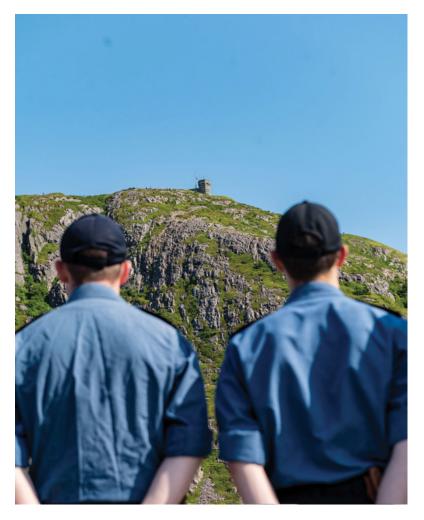
Adapting existing ships also fits into the government's newfound need to reduce spending and find efficiencies. While containerized systems and upgrades are expensive, they would likely deliver far more capability faster, and at a lower price, than new hulls. While the AOPS were never designed for such duties, and certainly not optimized for dealing with state opponents, a degree of flexibility is clearly required as Canada and its allies adjust to an increasingly dangerous security environment. The AOPS can play a role in meeting that new challenge, and that might require thinking outside the traditional Arctic box.

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Members onboard HMCS HALIFAX take in the view of Signal Hill and Cabot Tower as the ship transits into St John's, Newfoundland after returning from Operation REASSURANCE on 11 July 2022.

Image by: Pte Connor Bennett Canadian Armed Forces

So Warm a Reception: Hybrid Warfare and the Naval Encounter at Tatamagouche

LIEUTENANT-COLONEL ALAN ANDERSON LOCKERBY, MSM, CD

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In the village of Tatamagouche, located on the north shore of Nova Scotia, there is a cairn located off the main street beside the library. The cairn is faced with a brass plaque, which memorializes a short tactical engagement that occurred nearby in the eighteenth century.¹ Detailed analysis of the "Naval Encounter at Tatamagouche" commemorated in this monument shows that this violent, but little studied, action contains greater lessons for the profession of arms in Canada. Viewed from the tactical, strategic, and political levels of war, the naval encounter at Tatamagouche, and the 1745 Anglo-American campaign against Louisbourg of which it was part, reveals topics *du jour* at Western staff colleges.

The campaign touches on joint operations in what was, from a European perspective, ungoverned space. It saw employment of private military contractors, commercial technology modified for military use, and contracted sustainment. European countries and their colonies conducted operations with regional

allies, applying what we now call a whole-of-government approach against peer adversaries. Force structure and procurement make an appearance. In stark contrast to modern practice in the West, military leaders exercised decentralized authorities, responsibilities, and accountabilities, applying

military effects outside of traditional military domains. Control over natural resources and collective means of navigation played a role. The campaign ends with a textbook international relations *fait accomplit*.² All actors blended conventional and unconventional instruments of power simultaneously, in synergistic fashion, to exploit the vulnerabilities of their adversaries and undermine their political-strategic goals.³ Both sides concealed their identities when it suited their interests, pushing the boundaries of modern ethics and legality. Despite taking place nearly 300 years ago, one could distinguish this mix of ends, ways, and means with a modern definition: hybrid warfare.⁴

The continued drawdown of the Global War on Terror, the Russian invasion of Ukraine, and the increased Western focus on great power competition have pushed hybrid warfare to the forefront of Canadian Armed Forces (CAF) professional military education (PME). However, within CAF PME, study of hybrid warfare hinges upon case studies and methodologies from abroad; Russia, China, Iran, North Korea, and others.⁵ Are there relevant Canadian examples? Could, or rather, should Canadian case studies receive greater prioritization when framing hybrid warfare in CAF PME? This narrative essay will examine these questions by guiding the reader through known events related to this naval encounter, demonstrating the relevance of modern concepts to a Canadian historical engagement and illuminating the linkages to hybrid warfare. Simply put, if the CAF wants to understand hybrid warfare, implement modernized operating concepts, and foster empathetic citizenship in its members, its PME ought to incorporate more analysis of Canadian history into its study of hybrid warfare.6

Such history can be hard to conceptualize for military professionals. However, if, as a mental exercise, one considers terms like "fort," as approximating "forward operating base," a time long ago comes into focus. Carbines become muskets; turning rotors become sails; bombs from the air become cannons from the sea. Soldiers and sailors work together not because they are mandated to, as today, but because the technology of the time allows no other way. Suddenly, the fierce contests between small units in remote corners of the globe feel more familiar.

In a sense, the story of the naval encounter at Tatamagouche began on 4 September 1742, aboard the British slave galley *Mary*, then run aground in the Gambia River in western Africa. Local inhabitants boarded the immobilized ship and freed the slaves, who then attacked their captors. Only two of the crew survived. After 27 days hidden in the wreckage, the captain and David Donahew of Massachusetts, escaped to Senegal.⁷ Donahew would return to New England, although this incident would not dissuade him from continuing his life at sea.

Two years later and an ocean away, on 23 May 1744, upon learning of the beginning of the War of the Austrian Succession in Europe, a French-Mi'kmaw force from Louisbourg destroyed the Anglo-American fishing station at Canso.8 France's position in Atlantic Canada was dependent on First Nations' diplomatic, economic, and military assistance, as French garrisons were too small to compete with the British alone. The Mi'kmaq consented to French assistance in checking the encroaching British, but they acted according to their interests, not as pawns to French imperial objectives.9 After decades of war in modern Nova Scotia against the British and their Anglo-American



(left to right) Nova Scotian Tall Ship, Bluenose II, Her Majesty's Canadian Ship (HMCS) GOOSEBAY and French Ship L'Hermione sail in to Lunenburg, Nova Scotia in the early morning of July 18, 2015.

proxies, by the 1740s the Mi'kmaq had restricted most of their regular contact with the French to interactions with missionaries. Nevertheless, an influential minority faction of Mi'kmaq remained tightly linked with the French.¹⁰ The challenges of distance and decades of competition with France in the lucrative North Atlantic offshore fishery had, by the 1740s, enticed the Anglo-American fishing fleet toward less contested coastal waters. This strained the inshore fishery, the primary Mi'kmaw food source.¹¹ Anglo-American fishing infrastructure at Canso thus posed an existential threat to the Mi'kmaq: the French did not compel them to defend their resources and sovereignty.

Despite its formidable reputation, Louisbourg was more a protected commercial centre than a military fortification. The fortress served primarily as a fishing anchorage and transhipment hub between France and its colonial possessions in the western hemisphere. Easily overlooked today is Louisbourg's significance to maritime navigation. Its shared latitude with French ports was of critical importance in the era before methods were developed to determine longitude. Louisbourg served as the home port of the French offshore cod fishery, then the greatest source of French income in North America. For these reasons, the Anglo-American colonies to the south, who did not benefit from similar geographic proximity, greatly coveted this French fortress-port.

Concurrent to the attack on Canso, the French at Louisbourg issued letters of marque, swiftly generating combat power by converting commercial ships to privateers. French privateers immediately cleared the Anglo-American merchant fleet from shared fishing areas and shipping routes, capturing numerous prizes.16 Confusion reigned aboard the Anglo-American vessels. French merchant ships that would otherwise have been a normal presence attacked without warning. The Anglo-American colonies responded by generating privateers of their own, but it was too late. The French at Louisbourg had barred access to and denied use of the North Atlantic fishing banks. Using a blend of diplomatic, economic, and military instruments of power, the French had seized the initiative and dominated their adversaries, achieving strategic surprise in the region in a way that would not have been possible with conventional military forces alone; a practice aligned with the principles of hybrid warfare.¹⁷ This posed an existential threat to the Anglo-American colonies, which were economically dependent on free navigation of the seas.¹⁸

While preparing their response, Anglo-American leaders sent their privateers to disrupt the French and collect intelligence near Canso in the summer of 1744. Now Captain David Donahew, formerly of the slave galley *Mary*, sailed near Canso commanding the armed sloops *Resolution* (12 guns) and *Bonetta*

"The next spring, in 1745, a fleet of 51 merchant ships converted to transport troops, escorted by roughly a dozen sloops, sailed from Boston with the intention of capturing Louisbourg..."

(6 guns).* Donahew was one of many Anglo-American privateer captains raising hell in the area, capturing numerous French ships, and attacking anything of perceived military value on shore. According to French and Anglo-American sources, Donahew, on multiple occasions of sighting Mi'kmag on land, would fly French colours on Resolution and British colours on Bonetta, thus appearing to be a French privateer with a prize.¹⁹ Donahew would entice them onto his ship under the guise of friendly trade, then detain them and turn them over to Anglo-American authorities. Notably, Donahew captured Mi'kmaw chief Jacques Padanuques using these methods, for interrogation and ransom.²⁰ From Padanuques, the Anglo-Americans learned that a force of Mi'kmaw warriors accompanied by a missionary, Abbé Jean-Louis LeLoutre, were about to attack the British fort at Annapolis Royal.²¹ While obtained through methods of questionable legality, this early warning enabled the successful British defence of their fort during the summer of 1744.²²

The next spring, in 1745, a fleet of 51 merchant ships converted to transport troops, escorted by roughly a dozen sloops, sailed from Boston with the intention of capturing Louisbourg.²³ Sloops were privately owned and operated vessels, modified into warships, carrying 12-15 guns. A sloop's armament was less important than its speed and seaworthiness; guns could always be added later.²⁴

The Anglo-American fleet carried a militia force numbering over 4,000; most had brought their own weapons. Their numbers included "Provincial Auxiliary Companies," enlisted outside of the normal militia recruiting cycles and comprised of Iroquois warriors, white frontiersmen, and Anglo-American officers. Referred to as "Ranger" companies, these served as a specialized reconnaissance and, in modern parlance, unconventional

Henceforth, any number in brackets following a ship's name indicates the number of guns onboard.

"More troubling were British warships. Compared to their French and Spanish rivals, British warships were smaller, overcrowded with guns, and not desperately seaworthy..."

warfare capability.²⁶ In practice, Ranger operations often included deliberate attacks against non-combatants. This large force would attack a smaller, but comparatively more professional garrison. Louisbourg's garrison totalled roughly 1,500 troops, an even mix of local militia and professional *Troupes de la Marine*. The regulars manned the fortress' considerable artillery batteries and served "outside the wire" advising, enabling, and accompanying First Nations warriors in the region. Swiss mercenaries also served inside Louisbourg, having been contracted for garrison duties to offset a lack of French troops.²⁷

Incensed with the attack on Canso, the Anglo-Americans had launched their invasion without explicit approval from London. Concerned about the Anglo-Americans' lack of military training (let alone experience with opposed amphibious operations), the Admiralty on 8 March 1745 tasked Commodore Peter Warren, Commander North American Squadron, at its winter port in the Leeward Islands,** to supplement the attack on Louisbourg.²⁸ Leading His Majesty's Ships (HMS) Launceston (44), Eltham (44), Mermaid (44), and Superb (60), Warren accompanied the Anglo-American force, providing additional naval firepower and coaching their commanders through the conduct of large scale combat operations. Warren's small fleet, subordinate commanders, and team of advisors would balance the odds of a successful campaign while maintaining the outward appearance of an Anglo-American-led campaign. This mitigated the risk of a strategic escalation in this region, which Britain could not afford: they needed to dedicate resources to the European theater of the conflict and to defence of the home isles.²⁹ The Admiralty also readied additional warships with which to reinforce Warren's squadron.

The composition of Warren's squadron warrants elaboration. The Royal Navy (RN) of 1745 was not the elite service it would be fifty years later, during the Napoleonic Wars. Senior naval influenced selection of senior leaders. More troubling were British warships. Compared to their French and Spanish rivals, British warships were smaller, overcrowded with guns, and not desperately seaworthy. 30 Critically, British ships could not match adversaries' weight of firepower. It was an open secret that a British warship could not take on an enemy ship of equal armament unassisted.31 In an effort to manage these challenges, the Admiralty imposed standards on shipbuilders by way of "establishments" that mandated the dimensions and armaments of warship classes. Between 1714 and 1744, these factors drove the RN to the conclusion that their smaller classes of warships simply could not survive in the line of battle against peer adversaries. Most affected were a class of ship known as "Fourth Rates," which carried 40-60 guns. As a result of these trends, the Admiralty relegated most Fourth Rates to remote backwaters, such as North America. On the littoral frontiers of empire, though, their shallow draft and carriage capacity were useful during joint operations. While unsuited to fight alongside 100-gun ships, they still dominated any frigate, smuggler, privateer, or shore target. Having two decks, their extra workspace made them suitable command and control platforms.³² Other faults notwithstanding, Fourth Rates were tough, durable, numerous, and economical. In North American waters, these otherwise mediocre vessels found new life as 'blue collar' warships, and Warren's miniscule force would soon play an outsized role at Louisbourg. On the approach to Louisbourg, however, Anglo-American sloops would fire the first shots

rank could be purchased, and patronage, as much as ability,

The French had dispatched the 32-gun frigate Renommée in January 1745, as part of the normal rotation of forces at Louisbourg. Owing to ice conditions, it was unable to enter the harbour on arriving in late March, and it was therefore loitering near Canso when the lead elements of the Anglo-American fleet approached from the south. 33 Led by Tartar (14), several sloops broke from the amphibious convoy and engaged the much larger French frigate.³⁴ Although all French ships were renowned for their speed and fine sailing characteristics, the Renommée would have been hindered by doctrine and a rewards system that did not foster aggressiveness, like that of prize pay in the RN.³⁵ French preventative medical practices were inferior to the RN's, meaning higher levels of sickness among the ship's company likely reduced Renommée's fighting ability.³⁶ Credit must be given to the crews of the Anglo-American sloops, eager to prove themselves and spoiling for a fight. One imagines a line of amateur hockey players taking the ice against an Olympic speed skater; teamwork and energy against a magnificent individual performer. Tartar, ably commanded by Captain Daniel Fones, distinguished itself in the ensuing engagement, damaging the

^{**} Modern Antigua.

Renommée and driving it back to France.³⁷ Upon Renommée's return, France sent the powerful battleship *Vigilant* (64) from Brest to assist the Louisbourg garrison, while preparing a large relief fleet.³⁸

The Anglo-American force made landfall on 30 April and, advised by Warren, began the siege of Louisbourg by neutralizing the artillery positions that ringed the port.³⁹ Most sloop captains, like Donahew in Resolution, conducted joint operations on the outskirts of Louisbourg. They transported parties of rangers and bombarded Acadian and Mi'kmaw settlements to deter potential reinforcements and isolate the garrison.⁴⁰ Others, like Fones in *Tartar*, conducted maritime interdiction missions against ships attempting to assist the garrison. Some messengers escaped the closing ring around the port, many carrying dispatches for French military elements scattered across the region. The Louisbourg garrison commander's call for help soon reached Lieutenant Paul Marin de la Malgue of the Troupes de la Marine, then accompanying the Mi'kmaw force besieging the British fort at Annapolis Royal.41 Marin's partner force would return to Louisbourg and counterattack the invaders.

After the failure of the Mi'kmaw attack against the fort the previous summer, the French at Louisbourg had sent professional troops to partner with the warriors.⁴² Although portrayed in Anglo-American sources as the leader of Mi'kmag military efforts, Abbé LeLoutre's role, like that of all French missionaries, was diplomatic in nature.⁴³ The relationship between Marin and the Mi'kmaw warriors was akin to the modern concept of parallel command, based upon tactical cooperation and mutual support.⁴⁴ Marin was one of the premier frontier soldiers of the era, having served two decades in what is now Wisconsin.⁴⁵ There, he had led marines, voyageurs, and missionaries in establishing defended trading posts that advanced French interests in the region.⁴⁶ He blended diplomatic, economic, and military powers in hybrid fashion, challenging Anglo-American attribution of his activities.⁴⁷ His professional experience stood in stark contrast to that of the Anglo-American craftsmen attacking Louisbourg.

Vigilant arrived to reinforce Louisbourg on 20 May. Feigning retreat, Mermaid lured the pursuing battleship toward the waiting guns of Eltham and Superb, lurking in a nearby fog bank. 48 Warren defeated the powerful warship and took it as a prize; although "obsolete," when well-handled the elderly Fourth Rates still had teeth. 49 Aware that messengers had escaped Louisbourg, Warren deduced that at least one of them carried orders recalling French forces on the mainland. Given time constraints, these would most likely travel by sea. The Northumberland Strait, extending to the west, represented their most likely approach. The French relief fleet soon leaving Brest

"The following day, on Friday,
Marin's force departed
with 50 First Nations canoes
leading the five ships
northeastward, paralleling the
Malagash shore to their west."

represented the amphibious force's most dangerous threat. Despite reinforcement by six Fourth Rates and a frigate on 27 May, Warren did not have enough ships to defend from all directions. ⁵⁰ With these factors in mind, Warren consulted the Anglo-American leadership. He sent the Fourth Rates to the east and south to protect against the expected French fleet. ⁵¹ Warren also detached three sloops to interdict Louisbourg's maritime line of communication to the west. ⁵² It is likely not coincidence that Warren sent the promising Daniel Fones, commanding the *Tartar* and accompanied by Donahew's *Resolution* and the *Bonetta* (each carrying some rangers), to seek out the expected French reinforcements. ⁵³

Much of what is known definitively regarding subsequent events is owed to Captain William Pote. He had been in command of the schooner *Montague*, contracted to carry provisions to the British fort at Annapolis Royal, then under siege by Lieutenant Marin and his allies.⁵⁴ Detained by the French and Mi'kmaw warriors on Friday 17 May 1745, Pote kept a detailed journal during his captivity. From this document, we know that upon receiving his orders from Louisbourg on 9 June, Marin gathered his forces and travelled northeast through the Bay of Fundy.⁵⁵ On Monday 10 June, Marin's force crossed the Cobequid Mountains with roughly 200 Mi'kmaw warriors and a smaller number of French *Troupes de la Marine*.⁵⁶

Having traversed the mountains, Marin and other First Nations warriors in the area, who had travelled from Quebec, began assembling in the western corner of Tatamagouche Bay for their move eastwards to relieve Louisbourg.⁵⁷ This area, referred to as Gouzar in contemporary accounts, but called McNab's Bay today, is concealed from the Northumberland Strait. Marin's force spent the next day, Tuesday, building canoes and curing meat for their upcoming operation. The following day, on Wednesday, French officers from Louisbourg arrived with updates for Marin.⁵⁸ The First Nations forces with Marin totaled roughly 700 warriors in 50 large canoes by the end of the next day, Thursday. A group of French ships, two schooners,

"...down comes ye French
colors on the one side and
up ye English on the other
and knocked open their [gun]
portes and almost in the
twinkling of an eye they
fired their cannon."

two sloops, and a chaloupe (essentially a large rowboat with a sail) joined Marin, likely from nearby Ile St-Jean.*** The French schooners would carry the force's provisions and combat stores. The sloops would "ride shotgun," escorting the other ships and providing naval fire support during their actions.⁵⁹ Now numbering approximately 1,200 marines, warriors, and sailors, this force could decisively tip the scales at Louisbourg in favour of the defending French.

The following day, on Friday, Marin's force departed with 50 First Nations canoes leading the five ships northeastward, paralleling the Malagash shore to their west. Most of the French *Troupes de la Marine* rode in the sailing ships, although, some rode in the canoes along with the wariors and prisoner William Pote. Perhaps unsurprisingly, given the tidal conditions and the state of hydrographic mapping in the area, one or more of the French ships grounded in the soft, sandy bottom of Tatamagouche Bay. Seeing this behind them, the warriors stopped their canoes (near modern-day Malagash) and waited on shore for the French to free themselves. 60 It would prove a fateful delay.

The next morning, on Saturday, 15 June 1745, the three Anglo-American sloops commanded by Captain Daniel Fones patrolled the Northumberland Strait, searching for the expected Louisbourg relief force. At approximately 0600hrs, Fones spotted smoke to his south; one assumes it was the morning fires of the First Nations camped out awaiting their French allies. Considering their numbers, breakfast fires for 700 warriors would have been difficult to hide. Based on subsequent events, it would seem the Anglo-American force was to the northeast of Tatamagouche Bay at the time of sighting, with the wind at their backs. Fones took the lead with Tartar and Bonetta, with Donahew's Resolution in trail, protecting the rear and maintaining eyes on the strait. Sometime after Tartar and Bonetta

According to William Pote's journal, the warriors at Malagash moved out early that Saturday morning in their canoes, heading northeast toward the Northumberland Strait with the French ships behind in Tatamagouche Bay. It is unlikely that they were aware that the Anglo-Americans had seen their morning fires and were already moving to investigate. Pote states that the canoes left earlier based on their slower speed, however, wind and tidal conditions could also have influenced why the four French ships were behind.⁶⁴

Moving along the western shore of Tatamagouche Bay, Pote recalled in his account that the warriors spotted three sailing ships at close distance. Initially, this caused some bewilderment amongst the warriors, but, as the three ships drew closer, Pote noted that the approaching ships flew French flags. 65 Thinking that these were additional French reinforcements for Louisbourg, the warriors slowed their canoes and in a celebratory mood allowed the two leading sloops to catch up. On coming closer, Pote noted that one sloop assertively shot ahead and sailed directly into the path of the canoes, while the third manoeuvred towards Marin's element. 66 The warriors perceived a threat and turned westward towards the shore; it was too late. Tartar and Bonetta, flying French flags, bracketed the canoes at short range. The time was roughly 1000 hrs. According to Pote, "down comes ye French colors on the one side and up ye English on the other and knocked open their [gun] portes and almost in the twinkling of an eye they fired their cannon."67 Amongst the warriors in the canoes, Pote writes, "he was ye best man that could get ashore first."68 Fones' deception, likely crafted with Donahew's input, had worked.

The warriors rapidly beached their canoes and sought cover from the withering cannon and small arms fire behind a seawall along the Malagash shore. Pote noted that while no warriors were killed, they had been fixed to that position, unable to advance or withdraw. *Tartar* and *Bonetta* dropped their anchors and assumed a firing position, pinning the warriors and their French advisors ashore, separate from Marin and his four ships still in Tatamagouche Bay. Marin, seeing *Tartar* and *Bonetta* firing, would probably have moved to assist but had to deal with *Resolution* moving toward his cargo-carrying ships. Then, as often happens in small, tactical engagements such as this, a twist in events came into play at the worst possible time.

At some point after *Tartar* and *Bonetta* had dropped anchors and began bombarding the warriors ashore, but before *Resolution* and Marin's four ships could enter each other's firing range, the northerly wind dropped off, leaving the sails slackened and the ships unable to move.⁷⁰ While the warriors had

pushed ahead to investigate the smoke, lookouts aboard the *Resolution* spotted sails in Tatamagouche Bay.⁶³ There could have been little doubt in Fones' mind: he had found his quarry. The fight was on.

^{***} Modern-day Prince Edward Island.



(left to right) Her Majesty's Canadian Ship (HMCS) GOOSEBAY, French Ship L'Hermione and Nova Scotian Tall Ship, Bluenose II, sail in to Lunenburg, Nova Scotia in the early morning of July 18, 2015.

> Image by: Leading Seaman Dan Bard, Formation Imaging Services Halifax

been fixed, the *Resolution* was now in trouble: it was facing down five ships, two of which carried guns. More troubling, all of Marin's ships carried highly experienced French marines, fully trained in boarding operations and ship-to-ship combat. Augmented by the warriors in the chaloupe, the odds of five against one were decisively in Marin's favour.⁷¹ Donahew and the *Resolution* were in an unenviable position.

From Pote's point of view, prone behind the seawall, Fones' ships *Tartar* and *Bonetta* sustained their suppressing fire, denying the warriors' ability to conduct any sort of coordinated movement with Marin. At some point shortly after the wind died, messengers travelled between the warriors ashore and Marin's ships in Tatamagouche Bay. One assumes that the chaloupe with Marin played a role in facilitating this communication. Regardless of how it came about, according to Pote, everyone crouched behind the seawall under the fire of Fones' guns became aware of Marin's intention to take the *Resolution* by boarding.⁷² After doing so, the French force would drive off *Tartar* and *Bonetta* and continue their mission to Louisbourg.

During the time in which Marin formed his plan to board the *Resolution* and communicated it to the warriors driven ashore, all he and Donahew had exchanged were insults shouted across the still waters. Donahew noted that Marin's crews taunted him by name, evidently knowing both him and the *Resolution*.⁷³ Subsequent retelling from Pote and Donahew agree that Marin soon attacked with boarding parties of French marines in rowboats, coming upon *Resolution* at roughly 1300hrs.⁷⁴

What followed must have been a frenzied exchange of fire, as the French rowed circles around the sloop attempting to board. Donahew appears to have used his shipboard weapons in a layered defence, firing 200 double-round shots (two cannonballs simultaneously) from his four-pound guns while the boarders were farthest away, followed by fifty blasts of canister shot from his three-pound guns.⁷⁵ As the boarding parties got closer, *Resolution's* crew switched to swivel guns, as vicious an anti-personnel weapon as has ever existed, and their personal weapons. Wrote Donahew later, "[A]s they come to hand we

killed but the number I know not ... my stern by force of firing down to the water's edge, the round house all to pieces, they rowing all around me ... they being a thousand in number and I but forty-odd."⁷⁶

One should perhaps consider Donahew's account with caution. He was, after all, a paramilitary officer in an auxiliary force, whose experience at arms was primarily spent attacking non-combatants: this was likely his first time facing adversaries capable of fighting back. That said, one should have little doubt as to the ferocity and credibility of the French attack on *Resolution*. The *Troupes de la Marine* were professional naval infantry; boarding operations represented their specialty. After weeks of tramping through thick forests, one can infer that Marin and his troops relished the opportunity to fight a solitary enemy ship. Under the circumstances, Donahew can be forgiven for overestimating the numbers attacking him.

The situation sat at a precarious tipping point; the warriors and their canoes scattered ashore under fire from *Tartar* and *Bonetta*, while the *Resolution*, ammunition dwindling, desperately fought off Marin's concerted effort to board. One can only imagine what was going through the minds of the principle actors. Marin was about to pull victory from the jaws of defeat. Donahew fought an increasingly desperate battle for the survival of his ship and his crew. Fones could only continue to engage the warriors on the beach as he carried the burden of command. Whatever happened next, whichever side gained the advantage, would decide the outcome of the battle. The destiny of the Louisbourg garrison hung in the balance. And then, at around 1400 hrs,, the wind began to pick up, allowing the ships to manoeuvre more easily.

While it is unknown what conversations took place onboard the *Tartar* while the *Resolution* repelled boarders, by all accounts, as soon as the wind picked up, Fones was on the move. Lifting their anchors and manoeuvring out of their firing position, in what must have been a remarkable display of ship handling in such shallow water, close to shore and in light winds, *Tartar* and *Bonetta* formed up and made best speed to assist *Resolution*.⁷⁷

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At this moment, his boarding attack on Resolution not yet successful and Tartar and Bonetta closing into firing range, Marin would have taken stock of events. His First Nations allies had been separated from his element and scattered ashore. He had lost the advantage of force ratio in terms of ships: while he had two schooners and one chaloupe, his two armed sloops faced Fones' three. Were this not bad enough, with the building wind from the north (as reported by Pote and Donahew), Fones held the weather advantage. This is critically important in any battle between sailing ships, especially in the open water of Tatamagouche Bay where any further contest would take place. That Marin had, the day before, grounded his ships in the bay where he would now have to fight would also have entered his mind. At its most fundamental, though, Marin's mission was to relieve Louisbourg. This meant preserving his force and its combat stores, not seeking battle with enemy warships. He had been decisively engaged by a superior force in unfavorable conditions. With these factors in mind, Marin's next decision seems more logical. He recalled his boarding parties, then circling Resolution and under fire from Tartar and Bonetta.⁷⁹

At roughly 1500hrs, the French re-embarked their marines and moved southwest into Tatamagouche Bay. Fones' three sloops pursued, according to Donahew, "within pistol shot." It is doubtful that a fighter of Marin's experience would have been resigned to failure at this moment. He likely saw a chance to draw the aggressive Anglo-American force ashore, where his own superior numbers could be brought to bear on ground of his choosing. As the Anglo-American sloops were hot on the heels of the retreating French ships, Donahew ran his ship aground. At this moment, Fones would have analyzed the situation.

Fones' mission was to prevent the reinforcement of Louisbourg, which Marin could not do if he were hunkered down ashore 160 miles away. It is likely that Fones deduced Marin's intentions. Had Donahew been in command, perhaps the Anglo-American force would have followed and fallen prey to Marin's trap by attacking the French position on shore. It would seem, though, that Fones' cooler and more professional character had prevailed as he made his decision. With the French bottled up at Gouzar, he had achieved his commander's intent. Fones ordered *Tartar* and *Bonetta* to assist Donahew in freeing his ship from the sandy bottom, and left the French to their tactical retreat. Once complete, Fones anchored his ships in a blocking position, preventing Marin's ships from leaving Tatamagouche Bay.⁸²

As all of this took place, Pote noted that the warriors and their French advisors had boarded their canoes with the intention of joining with Marin. They were unable to do so, however, on account of Fones' position. The warriors' canoes could not manoeuvre on the water without being exposed to Fones' guns. 83 They elected instead to shoulder their canoes and make the long portage west to join Marin near what is now called Dewar's Creek. The French force had beached their ships and begun construction of a deliberate fighting position. It is likely with a sense of disappointment that Marin saw that Fones and his team did not venture further into the bay. The encounter at Tatamagouche had ended. Fones' after action report to Commodore Warren was all business: "[W]e gave them so warm a reception, killing some and wounding others."84

Marin spent the next day preparing his fighting position and conducting patrols in anticipation of a landing by Fones' rangers.85 The following day, a fourth Anglo-American sloop arrived from the east and joined Fones' picket line in Tatamagouche Bay.86 Fones pulled his ships out that day and resumed his sweep of the Northumberland Strait, unaware that Louisbourg had fallen just hours before.87 Commodore Warren had enabled this by offloading guns from his vessels and siting them on high ground ashore. On 10 June (while Marin crossed the mountains), the British used them to methodically bombard Louisbourg, causing considerable damage and destroying supplies and guns. In the wake of these losses, the garrison commander sought terms of surrender.⁸⁸ By Thursday, 20 June, all of the warriors from Quebec within Marin's force had abandoned him in frustration, returning home. Marin and his troops accompanied the Mi'kmaw warriors as they travelled back over the Cobequid Mountains to regroup.⁸⁹ The French fleet from Brest, hastily assembled and disorganized, left late and was ravaged by disease and bad weather enroute. It never arrived to relieve the garrison. 90

On 29 June, during the subsequent mopping up operations around Louisbourg, *Tartar* and *Resolution* spotted a Mi'kmaw force on shore to the west of Canso. After dismounting from *Resolution*, a force of eleven rangers led by Donahew quickly

found itself under fire and surrounded by warriors. Several rangers were able to withdraw under supporting fire from Tartar, but Donahew and five of his men were killed.91 Fones, on the other hand, would go on to continued success as a privateer, eventually retiring as a tavern owner. Said one senior Anglo-American officer later, "Captain Fones probably decided the fate of Louisbourg, for if this large force had fallen upon the rear of the New England soldiers and thus placed them between the fire of the two opposing forces, they would probably have had to end the siege."92 Marin would continue to serve with the Troupes de la Marine in North America, dying in 1753 in the territory that eventually became the state of Pennsylvania. 93 Pote survived two years of internment, and was exchanged at Louisbourg on Friday, 14 August 1747. He noted in his journal that he had been captured on a Friday, too.94 Promoted to Rear Admiral, Warren would serve with distinction under Admiral George Anson at the First Battle of Cape Finisterre in May 1747. The French 74-gun Invincible, captured by the British during the battle, would shape the next fifty years of British warship design, fleet composition, and force employment concepts. 95 Despite these innovations, and informed by lessons learned in North America, the RN would continue to design and build new classes of 50-gun Fourth Rates into the 1790s for joint operations on the empire's maritime frontiers. 96 The American military perpetuates the lineage of the Provincial Auxiliary Companies to present date, in the form of the United States Army Rangers.

The monument to the battle in Tatamagouche attributes the Anglo-American success to Donahew:

"In this harbour Capt. David Donahew of New England with three armed vessels surprised Lieut. Paul Marin's allied force enroute from Annapolis Royal to Louisbourg. He drove them ashore, disheartened the Canadian Indians, and prevented the French and Micmacs from reaching Louisbourg before its fall." 97

Donahew, the former slaver, made his mark during the campaign against helpless targets by way of deception. Perhaps he is commemorated on the monument because he did not survive the conflict, and aggrandized his role in his only known account of the battle. As a combat leader, the evidence suggests that Fones is owed whatever credit is due the Anglo-Americans. Most importantly, proper study of this campaign must incorporate Mi'kmaq perspectives. A wider understanding of the treaties that resulted directly from the conflicts during this period would allow for more meaningful conversations about reconciliation, commemoration, and a collaborative way forward that does justice to all participants.

"The subsequent peace and friendship treaties that followed, and the expulsion of the Acadians in 1755, separated the French from their partners in the region. Unable to leverage their allies' diplomatic, economic, military capabilities, the French could not maintain their regional presence."

The nearly three centuries of great power colonial competition in North America that preceded this battle did not end that summer. Despite considerable criticism from New England, in 1748, the British would return Louisbourg to the French in exchange for Madras in India, a textbook fait accomplit.99 This enraged many Anglo-Americans, who had provided the bulk of the troops and ships for the 1745 attack. They had suffered more losses to disease and malnutrition occupying Louisbourg than they had in capturing it, and truly desired the access to offshore fishing areas that it would have provided.¹⁰⁰ The return of Louisbourg would drive the establishment of Halifax in 1749, and the Mi'kmag effort to destroy it immediately thereafter.¹⁰¹ That history labels that conflict as "Abbé LeLoutre's War" speaks to the primacy of his perceived, rather than actual, role. 102 The subsequent peace and friendship treaties that followed, and the expulsion of the Acadians in 1755, separated the French from their partners in the region. Unable to leverage their allies' diplomatic, economic, and military capabilities, the French could not maintain their regional presence. The British campaign to destroy New France ensued, followed by resettlement of Nova Scotia by Anglo-American settlers.¹⁰³

All of this would factor into the complex reaction in Nova Scotia to the American War of Independence, where cultural and economic ties were undone by American privateer attacks against non-combatants. Most famous of the responsible captains, at least among Americans, is John Paul Jones, arguably the United States Navy's founding hero. 104
These attacks ultimately underpinned why the Maritimes would become part of Canada in 1867, rather than "the Fourteenth Colony." 105 From conflict over Mi'kmaq fishing rights, to a weakening of Maritime-Canadian identity, to control over natural resources, the complex alliances and great violence of this period reverberate to present day in Atlantic Canada.

This is by far not the only region of Canada or period of its history that would benefit from analysis through the lens of hybrid warfare. Canada is dotted with monuments to violent battles rarely studied in CAF PME, in places like Beausejour, Nova Scotia, River Canard, Ontario, York Factory, Manitoba, and Duck Lake, Saskatchewan. One imagines the history of Upper and Lower Canada, the Red River Settlement, 106 the opening of the Canadian West, 107 the Royal Canadian Mounted Police, the Hudson's Bay Company, and others, reframed as local disputes being incited to violence, and even genocide, by external actors' interests, be they political, cultural, colonial, or commercial. Such assessments would cross diplomatic, informational, military, and economic domains. Clearly, Canadian history contains many valuable case studies through which the CAF could analyze the problem space presented by hybrid warfare.

Could the CAF better prepare for conflict and competition in the emerging space, cyber, and information domains through study of historical Canadian conflict? For example, could the potential of "letters of marque" in orbit, cyberspace, or social media be analyzed using case studies from Canadian history? From a modern standpoint, was Warren's employment of naval guns ashore in support of Anglo-American ground manoeuvre an example of 'jointness,' or of all-domain operations? Would implementation of operating concepts optimized for hybrid warfare be more feasible if our members were educated in its tenets primarily through Canadian case studies, as opposed to those of other countries?¹⁰⁸ Do these case studies offer a more immediate and relevant understanding than rote repetition of the lessons gleaned from conflicts in other parts of the world? Who do we want our "whole-of-government warfighters" to be: hardened professionals like Marin, or paramilitaries like Fones? Is the CAF prepared, as an institution, to handle characters like Donahew? Should one view Marin as an infantry officer, naval officer, or armed capitalist? Was Pote a combatant, or not? Clearly, one could analyze almost any facet of hybrid warfare, political, strategic, or tactical, through this campaign; CAF PME should examine Canadian history to find more. To this end, historians should examine this topic and assist the CAF in developing studies to contrast historical campaigns against modern doctrine.

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Viewing our history from a hybrid warfare perspective would benefit CAF members as well.¹⁰⁹ An understanding of these conflicts, and the people they impacted, would inoculate members against unwarranted nostalgia for certain figures and movements. It could build our members' empathy with marginalized populations, at home and abroad, and produce a better-rounded citizen upon transitioning after completion of service. In short, the CAF would benefit from a more holistic understanding of our country, and the fact that the battle to define Canada smouldered over centuries. Power was decentralized: settlers, traders, missionaries, soldiers, and First Nations exerted influence as they sought to define and defend their overlapping domains. 110 With this in mind, Canada does not have a Gettysburg, a Spanish Armada, or a storming of the Bastille. Unlike many of our allies, Canadians recognize no distinct, conclusive, and violent event as the singular representation of our national identity. Canada is a unique country that developed along a unique path; this is something our PME should reflect.

The intent of this essay was to use a tactical vignette to present complex history alongside modern challenges, illustrating that the space between signifies an uncharted field of study that would benefit Canada. Viewing difficult national conversations through the lens of hybrid warfare could provide a means to understand who we are and how our nation came to be. The fruits of these efforts would strengthen CAF PME and present new models through which to frame current security challenges. For much of its history, Canada resembled many of

the distant places in which the CAF has conducted operations, such as the Balkans, Afghanistan, Libya, Iraq, the Baltics, and the Sahel. Unpacking our own history would better allow CAF members to understand our world, our profession, and, perhaps, ourselves. Given the nature of 21st century conflict, in which great powers again exploit adversaries' vulnerabilities by b lending multiple instruments of power, there is value in doing so. CAF PME wisely includes 'Vimy Ridge,' but could use more 'Tatamagouche.'

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The Canadian Forces
College (CFC) Joint
Command and Staff
Programme (JCSP) conducts
Experiential Learning Visits
(ELV) to all elements of
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at Garrison Petawawa,
March 30, 2022. Students
from CFC participate in
hands-on demonstrations
to view the land domain
capabilities and assets
held within 2 Canadian
Mechanized Brigade Group.

Image By: Cpl Melissa Gloude, Canadian Armed Forces Imagery Technician

Distance Learning within the Canadian Armed Forces: Potential Effects on Quality of Life

MAJOR (RETIRED) MARSHALL GERBRANDT

Major (retired) Marshall Gerbrandt is a PhD student at the University of New Brunswick. His research explores adult learning in the Canadian Armed Forces which includes military pedagogy; the formal and informal ways institutional culture is taught and learned; and online learning. Prior to doctoral studies, Marshall started his military career in the Royal Canadian Navy as non-commissioned member and finished it as an artillery officer in the Canadian Army. During his career, Marshall held leadership positions within the training system, operational units, and while deployed.

The Canadian Armed Forces (CAF) devotes significant time training members in both general and specific skill sets. As a result, members of the CAF spend a considerable portion of their careers away from home during Individual Training (IT), large-scale exercises and operational deployments, often for prolonged periods. These absences negatively affect the quality of life of members and their families¹ while adversely influencing overall CAF retention.² Large-scale exercises and operational deployments represent unavoidable absences from home. This article reports on research investigating whether increasing the use of Distance Learning (DL) within IT is a viable option to reduce the time members spend away from home and in turn, positively affect their quality of life and CAF retention rates.

The Canadian Forces Individual Training and Education System (CFITES), the over-arching framework for the development and delivery of CAF IT, defines DL as "any form of learning where time, locations, or both separate instructors and learners." Within this definition, there is no implied use of technology to connect instructor (or material) and student. Therefore, this article defines DL as any form of learning where technology is used to facilitate interactions between and or amongst instructors and students.

Literature Review

The well-being of military members and their families remains a priority for research within the CAF and the most recent health and lifestyle survey showed members spending 25 percent of time away from home with the preponderance of that time dedicated towards military coursing.⁴ Significant time away from family is negatively associated with an individual member or their family's quality of life⁵ and adversely affects CAF retention;⁶ whereas additional time home between deployments has a positive effect.⁷

Literature focused on CAF training and education is minimal, and almost non-existent outside of graduate work. Of published articles, most can be categorized as individual opinion pieces, 8 historic accounts, 9 or, most frequently, a medium to promote new endeavors¹⁰ rather than empirical analysis. Once the aperture narrows to DL, three studies were identified; two focused on full-time DL and one examined parttime DL. Scoppio and Tregunna touched on DL within the CAF on the periphery of a larger study about pedagogy and found that while the usage of DL was increasing, it often occurred without considering the applicable pedagogical approaches.¹¹ Jones explored member satisfaction with CAF delivered DL and found the greatest satisfier with DL is remaining in location while the lack of peer interaction was the leading dissatisfier.¹² Finally, Thorne discussed how individuals balanced competing academic, work and family demands on their time and found combining part-time DL and a full-time job negatively impacted their quality of life.¹³

Research Question

Building upon previous research but with a more narrowed scope, this article reports on research investigating the following question: How would an increase in the use of Distance Learning (DL) affect the quality of life of individual members and their families?

Research Methodology

By examining the experiences of individuals working within Regular Force Artillery Regiments, the impact of DL on quality of life was explored using case study methodology. My experience as both an Artillery Officer and Instructor-in-Gunnery led me to select artillery as my source for examination. Case study methodology allowed for an in-depth examination within a real-life context and provided an opportunity to identify categories across multiple sources of data. Exploration occurred through sub-research questions focused on understanding the three aspects of quality of life: (1) well-being; (2) work environment; and (3) living conditions. Seventeen participants completed an electronic questionnaire, followed by individual interviews with two participants.

The research reported within this article received approval from the University of New Brunswick's Research Ethics Board along with the CAF's Social Science Research Review Board. Potential or perceived conflict of interest issues owing to my military experience and rank were mitigated through the anonymous nature of the electronic questionnaire combined with a lack of any formal or informal authority over those members asked to participate. While my previous educational experiences led me to believe in the value of DL as a means to improve quality of life, I also acknowledge that my personal and professional situation at the time contribute to that positive view. This became quite evident during data analysis and synthesis due to the number of diverging opinions and experiences. Individual experiences with DL varied considerably, which resulted in unexpected responses.

Data collection occurred over several months and consisted of an anonymous electronic questionnaire and individual interviews. Participants were identified through purposeful sampling and needed to meet the following criteria: (1) attended a Royal Canadian Artillery School Developmental Period (DP) 2 or higher course between January 2018 and August 2020, 15 resulting in 312 unique individuals; and (2) currently serving (fall 2020) within the 1st or 2nd Regiment, Royal Canadian Horse Artillery (RCHA) but not operationally deployed, yielding 53 potential participants. The electronic questionnaire was administered to the 1st Regiment, RCHA and expanded to include the 2nd Regiment, RCHA due to a low response rate of 30%. Combined, the overall response rate was 32% (n=17), falling short of Cranton and Merriam's suggestion of 60%¹⁶ but comparable to Jones' much larger study on DL satisfaction (n=368 of 1310 invitations, or 28%).¹⁷ Upon completing the questionnaire, respondents were invited to participate in

"The majority of respondents believed absences associated with face-to-face military coursing increased their personal tempo"

an individual interview. Of the five volunteers, only two were interviewed because two were no longer willing and one was selected to deploy.

The electronic questionnaire focused on understanding: (1) IT experiences; (2) the effects of IT on the member and their family; (3) effects of personal tempo, which are the sum of demands military service imposes upon the member¹⁸; and (4) individual perceptions on an increased use of DL. Beyond understanding participant demographics, it consisted of a series of questions based upon a four-point scale (*no impact* to *a lot of impact*) with an opportunity for individuals to expand upon their answers in an open format. The individual interviews used these same topics as probes to spark discussion and further my understanding of their experiences.

Coding was an iterative process that started with the respondents' own words to manually generate codes and evolved as codes with similar meanings or redundant terminology were identified and consolidated using a spreadsheet.¹⁹ The initial 58 codes were first refined to 17 by eliminating redundant terminology and similar sentiments. Utilizing the updated list of codes, data was re-examined and each response was studied twice. First, by question to understand the extent they represented a common feeling and then by code to ensure consistent application.

This process resulted in a refined list of eight codes divided amongst three over-arching categories. The three categories are: (1) Family and Partner Relationships, consisting of absence, partner pressure and parental presence; (2) DL, consisting of instructional design, DL beliefs and networking/socialization; and (3) Quality of Life, comprised of well-being and personal tempo.

Findings

Participants provided data within both the electronic questionnaire (148 unique responses) and individual interviews (47 unique responses). Responses were coded both individually and collectively to ensure a common understanding of each code. Given the open-ended nature of each question, each response was often assigned multiple codes which yielded 272 associations (Table 1). In this section, I describe who participated in the study before exploring each category. Participants are identified alpha-numerically where R indicates a questionnaire response and P denotes an interview participant.

Table 1 Code Frequency

| | Code | Electronic Questionnaire Frequency | Individual Interview Frequency | Category |
|---|--------------------------|------------------------------------------|-----------------------------------|----------------------------------|
| 1 | Well-Being | 41 | 19 | Quality of Life |
| 2 | Personal Tempo | 30 | 14 | |
| 3 | Instructional Design | 29 | 22 | DL |
| 4 | Absence | 27 | 9 | Family and Partner Relationships |
| 5 | Partner Pressure | 20 | 5 | |
| 6 | Parental Presence | 19 | 2 | |
| 7 | DL Beliefs | 10 | 8 | DL |
| 8 | Networking/Socialization | 5 | 3 | |
| | Total | 181 | 82 | |

Demographics

The depth of responses provided insight as to the effects of increased DL across multiple ranks and family situations but remained narrow in overall demographic scope. Participants were predominantly male (n=16) failing to reflect female representation within the Canadian Army.²⁰ The majority were either married or common-law (n=14) and the average number of people within a single household was three. Of the respondents, most were Senior Non-Commissioned Officers (n=10) and Junior Officers (n=6) which aligns with the inclusion criteria.

Family and Partner Relationships

The first category describes how absences associated with military training affect both the member and their families and consisted of three codes: absence, partner pressure and parental presence. The majority of respondents believed absences associated with face-to-face military coursing increased their personal tempo. R6 identified a sense of "being gone all the time" and P1 noted that continuous time away "makes you more reluctant" to want to be away. R2 noted absences related to IT should be considered along with their unit's "high tempo." R16 described the partner's need to "pick up the slack" during their absence. These examples highlight how IT is only one factor that influences personal tempo: both collective training and incremental tasks contribute to a feeling of constantly being away.

Some respondents thought full-time DL would be challenging at home as their "spouse would expect [them] to be responsive and assist in home life" (R11). R14's family "would actually prefer if [they were] away" because they can cope with that absence whereas working from home and being unable to "attend to their needs" causes confusion and anger. Contrasting that view and noting DL must be separate from work, R5 thought that when completing courses from home, "family life would be easier, whether childcare or spouse work cycle" and that full-time DL could ease the childcare burden, because, when a military member departs for a course, the parent remaining at home effectively becomes a single parent (R10). Compared to the parent remaining at home, the respondents noted that as the absent member they experience pressure due to missing "events" (R16), "life moments" (R1), and are often faced with having "limited hours and focus" (R5) dedicated towards their family when away.



The Canadian Forces College (CFC) Joint Command and Staff Programme (JCSP) conducts Experiential Learning Visits (ELV) to all elements of the Canadian Armed Forces at Garrison Petawawa, March 30, 2022. Students from CFC participate in hands-on demonstrations to view the land domain capabilities and assets held within 2 Canadian Mechanized Brigade Group.

Image by: Cpl Melissa Gloude, Canadian Armed Forces Imagery Technician

Distance Learning

DL is the second category that emerged and focuses on individual experiences with DL and beliefs on its future use. It is comprised of three codes, which are networking/socialization, DL beliefs and instructional design. While some respondents discussed perceived affordances for instruction delivered face-to-face and at a distance, most focused either on the reasons why face-to-face instruction is preferred or how DL is ineffective. R8 stated DL would "increase the difficulty to plan, coordinate and study with other candidates" while R15 believed face-to-face instruction "provides a better feedback system due to being involved directly with instructors." R13 highlighted the importance of meeting members from other organizations because they "bring so much value to the experience" and face-to-face learning allows individuals to see what "other Units are doing different...and it widen[s] our knowledge and experience."

Respondent opinion is evenly split between those who articulated positive views towards the use of DL and those who believed it would reduce learning quality or be detrimental to their family situations. R18 was optimistic that DL could reduce workload while improving their home life but is more pessimistic about actual implementation. R5 believed technology and method of instruction can lend itself to "efficiently conduct[ing] DL." Amongst those who associated DL with positive outcomes,

"Some found attending military courses actually improved tempo compared to employment within their unit because "there are no duties, hours are set and adhered to" and the "only downside is being away from home" (R18)."

a number were adamant that certain skills are unteachable via DL such as practical or hands-on training. R3 suggested that many respondents' negative experiences are due to a perceived "disconnect between the course and the job." R1 built upon the previous statement, describing courseware as "click until you're done" but with outdated information.

Quality of Life

The final category that emerged following the analysis of data is Quality of Life. This category focuses on how military training, actual DL experience and potential DL affect individuals and their families and is comprised of two codes, personal tempo and well-being. Most respondents thought that a high personal tempo negatively affected both them and their families. Some found attending military courses actually improved tempo compared to employment within their unit because "there are no duties, hours are set and adhered to" and the "only downside is being away from home" (R18). While R3 does not believe DL is a viable option for career courses, they stated that they would "hate [their] life slightly less" if the time spent away from home were reduced. R13 agreed that "being away from home for shorter period[s] of [time] would increase [their] quality of life."

Additionally, R8 restated a common belief that reducing time away will not reduce "the workload back at the home unit." In contrast, P1 described a positive work environment that recognized his full-time DL status but noted circumstances vary and that his peers "were pressured by the chains of command to do other things." This reoccurring sentiment demonstrates the extent to which one's chain of command influences the DL experience.

According to R10, full time DL "would improve things" at home to include overall quality of life. They go on to note the positive effects of being home during the COVID-19 pandemic as it represented "the longest single stretch of [their] career" at home and "improved the quality of [their] home life significantly." However, R11 contrasted this view by highlighting the issue of the disconnect families may experience between what they see (member at home) and what the member is tasked to do (work). R15 also shared this opinion and stated that working at home "would allow for more family time during the evenings and weekends" but "add more work stress during the week due to being home during the week days."

Discussion

This study sought to discover how increasing DL within Artillery IT would affect the quality of life of individual members and their families. Below, I synthesize the findings with respect to the three categories identified.

Family and Partner Relationships

Based on many comments and observations concerning the effect military training has on both members and their families, this category consists of three refined codes: absence, partner pressure and parental presence. As witnessed through respondent comments, absence directly contributes to the latter two. While this research intended to focus specifically on absences associated with IT, respondents expanded the discussion within their open-ended responses to encompass all types of absences from home. It became clear that being absent for any reason contributes to stress and friction at home. These comments support prior research which negatively associates significant time away with family quality of life²¹ and overall CAF retention.²² Absences are unavoidable and take many forms within the military profession including both IT and operational deployments. IT represents an area in which increasing the usage of DL could positively affect an individual's personal tempo through an overall reduction in time spent away from home.

Military training is perceived by respondents to contribute to an increase in their personal tempo. Respondents were quick to identify that IT combined with collective training and incremental tasks contribute to the sense of constantly being away. Individual experiences varied, but respondents generally spoke to a rise in stress at home due to their partner's increased responsibilities. Conversely the military member's experience away from the home unit mostly resulted in a reduced tempo. Absences tend to lead to changes in responsibilities at home and what was once shared became the responsibility of the partner remaining at home.

Understanding the increase in responsibilities at home, military members recognize both the benefits and pitfalls of being away to conduct training. Geographic separation between family and training establishment provides an opportunity for members to focus on their specific educational tasks without familial distraction. However, they still view separation in a negative manner due to the increase in demands and stress placed upon those remaining. While respondents highlight their inability to assist with reoccurring obligations, increased tension is often the result of unforeseen events. In general, increased time at home with family is seen in a positive manner resulting in an improved quality of life. This observation aligns with what Jones identified as the second greatest satisfier with CAF-delivered DL, which was the ability to stay home with one's family.²³

While respondents identified negative aspects about training away from home, they also demonstrated mixed feelings on whether full-time DL would be a positive experience. Some respondents believe full-time DL would increase tension at home because their family would have difficulty rationalizing their partner being both home but also unavailable. While respondents believe being at home could increase their quality of life through additional time with their family, their primary concern remained with the extent to which their chain of command would respect DL. This echoes the findings of both Thorne²⁴ and Jones²⁵, who found the potential for increased quality of life is often offset by additional workload.

Distance Learning

This category consists of three refined codes, networking/ socialization, instructional design, and DL beliefs which focus on participants' experiences and thoughts concerning an increase in full-time DL. Compared to the other categories, this represents the most polarizing discussion with very few respondents taking middle ground. In contrast to the high levels of satisfaction with DL identified by Jones, 26 many respondents in this study negatively describe their experiences with DL. This may be due, however, to both the smaller sample size and types of courses attended. Jones surveyed members across the CAF (n=368) whereas this research focused on a single branch (Artillery) within a single CAF element (Army). Given the broader sample, Jones also focused on more formalized DL, which included full-time components. While some respondents to this research attended similar courses, most of their DL experience is with individual asynchronous courses delivered via the Defence Learning Network.²⁷

Although I did not specifically identify Garrison et al.'s Community of Inquiry (CoI) framework²⁸ in the surveys or interviews, much of the discussion related to DL centered on its three components, which are: (1) Social Presence, (2) Cognitive Presence, and (3) Teaching Presence. Therefore, in this section I



Young officers from the Guyana Defence Force work on their computers during a lesson in Georgetown, Guyana, as part of Exercise TRADEWINDS on 22 July 2023.

Image by: MCpl Genevieve Lapointe, Canadian Forces Combat Camera, Canadian Armed Forces Photo

use Col as a framework upon which to discuss responses related to DL and highlight it as one possible framework for considering future CAF DL.

Social presence refers to "the ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and develop inter-personal relationships by way of projecting their individual personalities."29 While considering past DL experiences, many respondents highlight how face-to-face learning provides an opportunity to interact with peers and establish professional networks. In contrast to their DL experiences, which are often completed in isolation, faceto-face instruction provides an opportunity to learn from their peers' experience, understand how comparable organizations are accomplishing similar tasks, and how those same organizations are doing things differently. Ultimately, respondents note that the lack of peer interaction does not increase their knowledge or experience. As a result, there is a preference for residency-based training because it provides that direct interaction with peers. This sentiment aligns with Jones, who found the most cited reason for preferring classroom learning was peer interaction.³⁰ It should be noted that while the respondents of this research have limited experience beyond DL designed to be delivered individually, their perceptions on full-time DL align with the experiences of Jones's sample.

Maintaining Col as the framework for discussion, *Cognitive Presence* is defined simply as the "dynamics of a worthwhile educational experience." When discussing instructional design, the majority of participants' comments focused on what should or should not be taught via DL. In fact, many respondents were adamant that certain tasks must not be taught via DL, deeming instruction that could be classified as theoretical more suitable for DL than instruction that could be classified as applied or practical.

There exists a high level of mistrust in both the quality and delivery of DL within the CAF. Repeated throughout the surveys and interviews were negative comments towards DL in terms of course quality and utility. Much of this may be the result of DL training completed via the Defence Learning Network. The fear of not receiving the same level of education was identified by respondents and highlighted by Thorne, who found that some participants felt DL programs were considered second tier in relation to their full-time equivalents. Similarly, Jones identified quality in course material and DL technology as a dissatisfier.³²

Teaching presence is comprised of course design, facilitation of learning and instructional direction. The importance of each component is difficult to weigh relative to each other as both educational context and student dynamics are critical influencers.³³ When comparing positive aspects of face-to-face instruction and DL, respondents believe the instructor availability may be significantly less in the latter. Building upon that concern is the belief that face-to-face interaction will provide better feedback and potentially be the only viable means for instructors to identify struggling students. This former sentiment was shared by the participants in Jones's research where teacher interaction followed peer interaction as the second most cited reason for preferring the classroom environment.

Respondents are evenly split on whether increased full-time DL would improve their quality of life. Those that are opposed often describe the difference between a desired and realistic reality. The former is represented by an optimistic outlook which sees a clear separation between work and training regardless of geographic location. In this situation, most believe full-time DL would improve their quality of life by reducing the number of days they are away. While that is desired, many believe it is not realistic and shared a more pessimistic outlook on actual implementation based upon their experiences with part-time DL. This belief aligns with Jones's findings identifying the importance of chain of command support during the delivery of DL with overall satisfaction with DL. Jones determined that chain of command support was a strong factor in determining overall satisfaction with DL. Similarly, Thorne found inconsistencies in how individuals were treated as it relates to how much (or little) time during working hours was provided to focus on their part-time DL.34

Quality of Life

Consisting of two refined codes, personal tempo and well-being, this category explores respondents' thoughts on full-time DL and how this would affect them and their family. In general, respondents held a low opinion on whether true separation between work and full-time DL could be achieved without geographic separation.

Suggestions of increasing the use of DL as a means to reduce time spent away appears to be a viable solution.

However, respondents show mixed feelings and provide a more nuanced view on the subject. The stressors associated with being absent may be replaced by the friction created by working at home. Just as respondents fear their chain of command will not recognize full-time DL status being comparable with in-person instruction, respondents believe their family may share a similar sentiment. Geographic or physical separation between work, home and a training establishment appear to provide naturally understood boundaries that are easy for both families and the chain of command to understand. Having members conduct DL from home potentially solves one problem (absences associated with training) while creating another: friction within the home.

Recommendations

Increasing the use of DL within the IT system has the potential to positively affect the quality of life of both individual members and their families. While each category touches upon a different topic, respondents continue to raise two sentiments, which are: (1) Acceptance of full-time DL in the home as a legitimate place of employment; and (2) Quality and implementation of full-time DL as a method of instruction. The following addresses each sentiment and provides recommendations to mitigate the concerns raised by respondents.

Acceptance of Full-Time DL

A recurring sentiment shows respondents do not believe separation between work and full-time DL is possible. This is often based upon their experience with part-time DL and how their respective units enabled their work-life balance. Increasing the use of DL within the IT system could result in reduced absences from home and thus improve familial quality of life. On the surface, this sentiment aligns with existing research³⁵ and appears to indicate a positive response to my research question. However, many respondents identified a lack of recognition by both their employer and their family that DL, because it is at home, constituted work. This issue is two-fold. First, the perception surrounding DL within the CAF must evolve to ensure both the quality and perception of full-time DL is synonymous with face-to-face instruction. The lack of geographic separation between the member and the training establishment must still result in separation between the member and their unit. Significant respondent discussion surrounds this subject. Unlike part-time DL, where experiences vary greatly, 36 full-time DL must be accompanied by command direction and guidance speaking specifically to the separation between a unit and their members in a manner comparable to currently delivered face-to-face instruction.

Many mechanisms exist within the institution to change how DL is both approached and experienced by its members. However, influencing the familial sphere is much more difficult and potentially beyond the reach of the CAF. It is possible that shifting the method of instructional delivery, regardless of duration, from face-to-face to full-time DL could have unintended consequences and negatively affect the member's home life. In an attempt to improve familial quality of life, is full-time DL inadvertently making it worse?

Normally, full-time CAF DL is conducted from one's home. However, few respondents have experienced this in general and none outside of the current COVID-19 pandemic. It is this reality and experience which led most to describe their home life as an unviable work or learning environment and spoke to the increased stress that occurred. While a post-pandemic normalcy may improve the situation and reduce the number of people in the household during the day, it is still realistic to expect to encounter a number of members whose home life is not suitable for completing full-time DL successfully for a variety of reasons. Although the CAF cannot enforce upon its members what it believes to be an acceptable work-from-home environment, it can aim to provide an alternate work environment separate from their normal place of duty which is more conducive to conducting full-time DL. In addition to reducing potential familial stressors, this solution continues to reduce the overall time a member spends away.

Quality of Instruction

As a method of instruction, properly designed and implemented full-time DL could positively affect a member and their families' quality of life through a reduction in the time spent conducting IT elsewhere. However, simply transitioning the mechanism of delivery without leveraging the affordances of DL creates the risk of replicating the same respondent issues and complaints they associated with the Defence Learning Network. Implementation of DL as a method of instruction should consider both current research, CAF technological limitations, and respondent opinions on what material is best suited for this medium. As respondents considered previous IT, it was believed most theoretical lectures could be taught via distance but with a caveat focused on instructor presence and availability.

In contrast to theory, practical training, which was often linked to simulated or hands-on training, was deemed unviable given present technology and resources. Further, respondents do not want to learn in an isolated asynchronous manner, which was negatively associated with previous experiences using the Defence Learning Network. Respondents want community and the ability to interact and learn from both their instructors and peers. Therefore, increasing DL is a viable solution but it should be implemented and designed to leverage the benefits of DL rather than simply delivering face-to-face lectures at a distance.

Limitations and Direction for Future Research

This research is limited in terms of its sample size and focus on a specific occupation within the Canadian Army's IT system. It is also important to note that it took place during the midst of a pandemic where respondents' familial situation was likely different from either pre- or post-pandemic normalcy. Thus, findings from this research cannot be transferred within the CAF or Canadian Army and should be considered against the lived reality of the time. Further, participants had various experiences with DL within the CAF which may have influenced their opinion on DL's applicability within IT. This variable was not controlled for and examining the quality and type of individual experiences was beyond the scope of this study.

Literature discussing training and education within the CAF as a whole is limited and rare when specifically focused on DL. While this research adds to that body of literature, more work is necessary to better understand the effects of increased DL on both the individual member and their family. To achieve that, the following two recommendations speak to scope and scale.

Increasing the use of full-time DL within the Canadian Army's IT system would reduce the time members spend away from their families during the conduct of military courses. While a reduction in time away is likely to have a positive effect on both them and their family's overall quality of life, the potential exists that it may not, and further research is needed to weigh properly the benefits against the drawbacks. Specifically, the scope of research should be expanded beyond the individual member and include their family. A broader scope should explore the impact full-time DL would have on military families to understand the extent to which training creates stressors. As a result of COVID-19, the CAF was forced to transition a number of senior leadership programmes, both officer and Senior Non-commissioned, to full-time DL. Direct comparisons between senior programs delivered in a synchronous manner such as the Joint Command and Staff Program or the Advanced Leadership Program (where DLN is not used as a learning management software) and use of DL within lower level IT may prove difficult due to scope and course aim. However, understanding how remote learning affected individual quality of life is valuable.

Due to the rank of most respondents, CAF DL experience outside of the DLN was limited and thus the majority of responses are based upon interactions within that system.³⁷ Thus comments about future DL are predominately shaped by their experiences with mandatory asynchronous DLN courses completed in isolation (ex. General Safety or Expenditure Management). While critiquing DLN is beyond the scope of the research reported within this article, examining its effectiveness as an instructional medium is worthy of future exploration. This is particularly important given the institution's increased reliance upon DLN a means to deliver CAF-wide instruction

combined with anecdotal evidence that speaks to ranging from quality to applicability.

Beyond scope, the scale of this study is small in terms of overall participation and area of focus. Future research inquiries should include a larger and sample size which might explore different training systems, while also taking into account individual CAF experiences and how they might influence perceptions of both general IT but also DL.

Conclusion

Quality of life is adversely affected by the time military members spend away from their families. Much of this time is spent attending military courses within the IT system. This study explored how an increase in the use of DL within the Canadian Army's IT system can affect the quality of life of its members and their families. It was found that increased usage of full-time DL could positively affect the quality of life of individual members and their families. However, current

part-time DL experiences and perceptions of full-time DL are not entirely positive. A recurring sentiment shows respondents do not believe separation between work and full-time DL is possible. Prior to implementation of full-time DL, work is needed to address perceptions of and attitudes to DL as well as both institutional and instructional approaches to delivery. DL is not new within the CAF but the COVID-19 pandemic led various organizations to transition instruction from face-to-face to this mode of delivery.

Increasing the use of DL within IT was expected to positively affect quality of life by reducing absences. Interestingly, study respondents provided a more nuanced view and identified how full-time DL could result in increased tension at home. Therefore, unintended consequences should be considered before fully implementing DL as a medium for full-time instruction. As these institutions consider the way ahead, this study raises questions on how increasing the usage of DL might affect both members and their families and ought to be explored more fully.

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NATO Chair of the Military Committee Admiral Rob Bauer gives apresentation to a group of students at the Canadian Forces College in Toronto, Ontario, 16 November 2022.

Image by: Corporal Justin Dreimanis, 4th Canadian Division Headquarters Public Affairs

Some Personal Reflections on Teaching Through the COVID-19 Pandemic at the Canadian Forces College

ADAM CHAPNICK

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I am writing this as the Canadian Forces College (CFC) has begun its plans to resume fully in-person teaching and learning in both the Joint Command and Staff Programme (JCSP) and the National Security Programme (NSP) for the 2023-24 academic year.

Inasmuch as nearly three and a half years of online and hybrid teaching has been difficult for everyone involved, I suspect that the CFC will emerge from the pandemic as a stronger and more agile institution of professional military education, and I am certain that the experience has made me a better teacher.¹

"Thanks in part to the pandemic, the IRC has finally been able to take its rightful place as a full partner in the College's teaching and learning process and the CFC has made the transition to a digital-first approach to academic research."

Here are three reasons why:

1. Advancements in Pedagogy and Learning Supports

Although not all of us would have admitted it at the time, prior to the pandemic the CFC's approach to new communications technologies was mired in complacency.

We made poor use of an outdated learning management system and taught largely the same way in 2020 as we had when I arrived at the College in 2006.

The pandemic caused at least three significant changes.

The Information Resource Centre

First, it strengthened the relationship between the academic faculty, the students, and the staff at the Information Resource Centre (IRC). Because students could not wander over to the IRC at their leisure, we had to integrate the centre and its internationally-regarded digital resources into the curriculum more deliberately. Doing so strengthened relationships between the IRC staff and the student body; those relationships persisted throughout each year, leading to a better use of IRC resources and more coherent programmes as a whole.

Thanks in part to the pandemic, the IRC has finally been able to take its rightful place as a full partner in the College's teaching and learning process and the CFC has made the transition to a digital-first approach to academic research.

The Flipped Classroom

The CFC embraced the flipped classroom by accident.² In 2020, as we transformed our curriculum to enable online delivery, the College declared that all synchronous learning had to take place during a daily five-hour window (to accommodate students working from Canada's many time zones). To maximize student engagement during that window, many of us chose to pre-record course lectures and use the synchronous blocks for live question and answer periods as well as live seminar discussions. A much-improved learning management system enabled students to post questions to the lecturer in advance, but we also offered the opportunity to ask them spontaneously. As an added bonus, drawing on the College's bilingual mandate, we were able to have the pre-recorded lectures translated.

The combination of pre-recording and translation was transformational. Some of the francophones (and some of the international officers who spoke French) could finally watch the bulk of our lectures in their first language. Others chose to watch in the original language of delivery, but took advantage of their ability to stop and start the recording, and returned to ideas that were not clear the first time. Still more downloaded the lectures and listened to them as podcasts in the car or in the gym. The opportunity to post questions in advance allowed some of the most thoughtful students to think through their ideas and take the time to ensure that their questions were phrased appropriately.

When I was briefly able to resume in-person lecturing in NSP in fall 2021, I maintained the flipped approach. It simply made more pedagogical sense. My lectures are now bilingual, and significantly more accessible. Certainly, pre-recording requires more work (especially up front) on my part, but it is well-worth the investment. My classes will continue to be flipped in the future whenever possible, as will some of my colleagues'.

Break-Out Rooms

Although small group discussions have always been core to the CFC curriculum, instructors had often been hesitant to break individual seminar cohorts down any further, if only because the physical design of the College — i.e., insufficient available physical 'break-out' spaces in close proximity to the main classrooms — made it difficult to break out and reconvene as a whole particularly quickly.

Virtual teleconferencing applications like Zoom and MS Teams removed our dependency on physical geography. With the press of a button, one could easily establish smaller groups, and faculty members could circulate among them. Calling everyone back together was similarly straightforward.

The break-out room experience inspired a permanent change in how we conduct discussions on the NSP experiential learning visits.

Prior to the pandemic, the 30+ person cohort would meet together at the end of the day to reflect on what we had learned. The success of the break-out rooms inspired the 2020-21 cohort to request that we use smaller groups for these initial reflective sessions, to better enable everyone to speak and be heard.

We have now institutionalized this process, and the written reflection papers that have followed have been noticeably stronger ever since.

2. Clarity on the Role and Value of Informal Learning within Our Curriculum

The CFC has long championed the importance of informal learning to the experience that we offer. Members of the JCSP and the NSP are brought to Toronto for ten months to keep them away from the churn of Ottawa. They eat together, exercise together, and participate in extra-curricular activities to build the sorts of social bonds and long-term relationships that will serve them well as they progress in their careers.

Faculty, senior mentors, and defence staff are available for scheduled, and impromptu, meetings throughout the day, as are members of the IRC. There are opportunities for personal conversations and meals with esteemed guests, both military and civilian. And being situated in Canada's most multicultural city provides CAF members and international officers with valuable exposure to a unique element of the national social fabric.

The tangible loss of some of those opportunities caused by the pandemic validated the College's traditional value proposition. When it comes to professional military education at the intermediate to highest levels, there are clear and irreplaceable benefits to combining formal learning with in-person informalities, be they organized or more random. Transforming our core programmes into something different would compromise their short- and long-term effectiveness pedagogically, socially, and professionally.



Canadian Armed Forces members deployed on Operation UNIFIER Roto 10 help design the Training Systems Specialist Course in Stare, Ukraine, 12 November 2020.

Image by: Avr Melissa Gloude, Canadian Armed Forces Imagery Technician

But our pandemic experience has also demonstrated that there is a difference between informal learning in a group of approximately 30 (on NSP) and a group of 100 (on JCSP). Interpersonal bonds can be developed more quickly within the smaller cohort. It is therefore possible to integrate additional "at home" periods within the NSP calendar and provide students with more time with their families without undermining their overall experience. Doing so makes sense in the context of a program that typically sees more than half the cohort commuting home to Ottawa most weekends.

We have therefore begun to redesign the NSP with such thinking in mind: Which elements of the curriculum are best delivered in person? Are there some that might be offered virtually without compromising the necessary opportunities for informal learning? Thus far, we have found that the bulk of the curriculum is still best taught in Toronto, but there are select periods during each rotation that might be delivered from afar.

3. Improved Civil-Military Cooperation

Recent years have seen a marked improvement in civil-military relations at the College. When I arrived over fifteen years ago, I was warned about a significant divide between the command authorities and the small academic faculty contingent. While an increase in the size of the faculty cohort and greater humility from both sides gradually transformed the relationship into a genuine partnership, the onset of COVID-19 resulted in unprecedented improvements.

The can-do attitude of the military staff was galvanizing. Their ability to master the new technology and coordinate the renewal of the CFC curriculum was inspiring, and their commitment to hard work was contagious. The military staff brought out the best in the professoriate, and together (along with our equally engaged IRC counterparts), we responded as best we could to an extraordinarily difficult predicament.

Add to that the incredible resilience demonstrated by the student body, and I cannot imagine that any of my colleagues have emerged from the last three years with anything but the ultimate respect for the work of our military peers.

Conclusion: Work Still Needs to be Done

It would be tragic if the progress of the last three and a half years was followed by complacency upon our return to in-person learning.

It seems to me that there is still significant work to be done to maximize the student experience. The challenges that our JCSP military faculty faced in their efforts to assess their students professionally while we were exclusively online has led me to wonder whether we have positioned them for success as mentors. While we have made remarkable strides in adapting our curriculum to take better advantage of advancements in teaching and learning technologies, I have no doubt that there is more progress still to be made. I sense feelings of burn-out among my academic colleagues that will require time and empathy to overcome. Like just about every institution in the CAF, the CFC remains under-resourced given the boldness of its academic and professional ambitions. And the rapidly changing international security environment means that our curriculum will always be in flux. Nonetheless, I remain confident that we are emerging from the last three and a half years well-positioned to serve the CAF and Canadians going forward.

Winston Churchill once said that one should never let a good crisis go to waste. It seems to me that, in the face of a brutal global pandemic, members of the Canadian Forces College took his advice to heart.

Notes

- 1 It appears that my experience is not exclusive to the professional military environment. See Beckie Supiano, "A pandemic silver lining? More people are talking about teaching," The Chronicle of Higher Education, 2 June 2021, https://www.chronicle.com/ article/a-pandemic-silver-lining-more-people-aretalking-about-teaching.
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Private Dariane Ross Vollant, member of the community of Pessamit and participant in the 2023 Carcajou program, laughs at a joke in the training area at 2^{nd} Canadian Division Support Base Valcartier, Quebec, on August 8, 2023.

Image by: Corporal Sébastien Lauzier-Labarre, Valcartier Imagery Services

Finding Character Strengths in How Military Leaders Talk About Resilience

MEAGHAN WILKIN, PHD, RÉMI PARÉ-BEAUCHEMIN & LOBNA CHÉRIF, PHD

Meaghan M. Wilkin, PhD is an Assistant Professor in the Department of Military Psychology and Leadership at the Royal Military College of Canada. Meaghan is a senior team member with Resilience Plus focusing on research and education. In 2021, under Meaghan's guidance, the Resilience Plus program launched The Resilience Plus Podcast. Her research focusses primarily on the long-term effects of stress, how stress affects the brain and how social bonds can prevent or alleviate these effects and lead to resilient outcomes.

Rémi Paré-Beauchemin, MSc, Ps Ed has just completed his master's degree in psychoeducation at the University of Sherbrooke. His master's thesis explored school stressors and appeasing factors in adolescents using Photovoice. He is beginning a doctorate in education to build and evaluate an intervention aimed at developing the "true self" in post-secondary students to foster their sense of meaning in life, their resilience, their well-being, their mental health, and their academic perseverance. Resilience is one of his passions, hence his interest in joining the team of The Resilience Plus Podcast.

Lobna Chérif, PhD, CAPP, CRT, PPCC, MBSP is the Founder and Director of the Resilience Plus program at the Royal Military College, where she is an Associate Professor at the Department of Military Psychology and Leadership and where she also holds the Chair in Resilience. Dr. Chérif's current research focuses on character strengths, mindfulness, resilience, and accomplishment — and how to apply this understanding to improving well-being and performance.

Talking About Resilience

Over the last 60 years a variety of research fields (e.g., biological sciences, psychological sciences, engineering, disaster recovery, etc.) and industries (e.g., medical, military, government, etc.) have increased their use of, and research on the term "resilience" (Buzzanell & Houston, 2018; Folke, 2016; Hermann et al., 2011; Houston & Buzzanell, 2018; Manyena, 2006; Rutter, 1993). Not surprisingly, usage across these various fields results in a variety of definitions for the term "resilience". For example, the field of mechanical engineering defines resilience as how well a system or structure can withstand and adapt to changes in the environment (Altherr et al., 2018). When applied to humans, at either the individual or group level, the field of psychology defines resilience as the ability to "bounce back" after experiencing challenging circumstance (Buzzanell, 2010). However, some researchers argue that human resilience is not a singular trait that people either have or do not have, but rather a dynamic trait that is developed, maintained and fostered by experiencing challenging situations (Buzzanell, 2010) and that people do not simply "bounce back" but can rebound and perform to a greater magnitude; a term referred to as "antifragility" (Talib, 2012). This ability to bounce back or perhaps thrive in challenging situation is enhanced by the use of one's character strengths and virtues (Niemiec, 2019).

Resilience and antifragility are needed in environments where job demands and/or the challenges faced by personnel are high, dynamic, and complex; this is often characteristic of the public service (Franken, 2019; Franken, Plimmer & Malinen, 2020) including service in the armed forces (Bartone, 2006). Several practical, hands-on resilience-based training programs exist in a variety of military forces around the world (e.g., Canadian Armed Forces: Road to Mental Readiness/R2MR, Bailey, 2015; Fikretoglu et al., 2019; British Army Infantry: Mental Resilience Training, Precious & Lindsay, 2018; Australian Defence Force: BattleSMART, Cohn, Hodson, & Crane, 2010). However, another possible and perhaps more subtle way in which personnel learn about resilience and antifragility is through listening to their superiors talk about this topic. Of particular interest for our team is whether leaders mention, either directly or indirectly, character strengths when discussing resilience in informal settings. That is, do leaders use language associated with character strengths when describing their own experience(s) of resilience? To the best of our knowledge no study to date has examined this possibility. Therefore, as a starting point in understanding how military leaders speak about resilience, we listened to various episodes of the Resilience Plus Podcast that featured currently active or recently retired military leaders (i.e., guests of the podcast ranking at or above Lieutenant-Colonel). We evaluated each episode for the overall message conveyed about resilience and whether it aligned with an identifiable character strength or virtue as detailed below.

Resilient Language in The Resilience Plus Podcast

The Resilience Plus Podcast is part of various initiatives (i.e., Research, Training, Education, Mentoring, Coaching) offered at the Royal Military College and the Royal Military College — Saint Jean. The goal of this on-going project is to provide Naval and Officer Cadets with the opportunity to have conversations about resilience with people who have experienced and demonstrated it in their personal and/or professional lives. Beyond this primary goal, a secondary goal of the podcast is to provide a broader audience (i.e., faculty, staff and students) with stories of resilience from people who have lived it. During the podcast sessions, guests were directly asked to address what resilience means to them and how they demonstrate this quality. All podcast episodes contained both universal questions (asked of all guests) and guest specific questions (asked of only a particular guest) which, by default, created semi-structured interviews about resilience. The podcast sought out a variety of speakers from both military and civilian populations. However, since we were interested in the language of resilience in military leaders, we limited the current evaluation to episodes that featured a person who, at the time of recording, was currently an active serving member or a recently retired senior member of the Canadian Armed Forces (i.e., retired within two years prior to recording).

Each episode that met these criteria was evaluated for whether it contained a specific character strength (or virtue) as detailed by Peterson & Seligman (2004). Briefly, the 24 character strengths (including appreciation of beauty and excellence, bravery, creativity, curiosity, fairness, forgiveness, gratitude, honesty, hope, humility, humor, judgement, kindness, leadership, love, love of learning, perseverance, perspective, prudence, self-regulation, social intelligence, spirituality, teamwork, and zest) cluster into familial groups of resemblance according to 6 main virtues (i.e., wisdom: creativity, curiosity, judgement, love of learning, perspective; courage: bravery, honest, perseverance, zest; humanity: kindness, love, social intelligence; justice: fairness, leadership, teamwork; temperance: forgiveness, humility, prudence, self-regulation; transcendence: appreciation of beauty and excellence, gratitude, hope, humor. For more information, see viacharacter.org/character-strengths as well as Macfarlane, 2019, Peterson & Seligman (2004), Ruch et al., (2021), and Seligman (2011). These character strengths, which we all have within us, contribute to our ability to endure a full range of experiences (i.e., positive, neutral, negative) and allow us to thrive (Macfarlane, 2019; Niemiec, 2019). Therefore, a second goal of the current evaluation was to note, which character strengths (if any) military leaders mentioned during their conversation about resilience. This, of course, was a subtle and indirect aspect to note because at no time were podcast guests asked to highlight a character strength and the character strengths were only identified offline after the semi-structured interview was complete.

Two independent listeners evaluated ten English podcast recordings. After listening to the episode in its entirety, listeners selected the most evident character strength presented by the speaker. The two listeners then compared their identified character strength with each other, and only congruent selections were explored further (i.e., the listeners explained how they selected the character strength and what information within the episode guided this selection). Based on this process, a total of ten character strengths were identified as integral to how resilience was described by military leaders on the podcast. These top ten podcast character strengths are described in more detail below. The presentation below is in alphabetical order and does not reflect a rank of importance or amount of usage within podcast episodes.

"Emotional strengths, like bravery, are particularly important for the development of resilience because they provide individuals with the necessary means to face adversity."

Character Strengths Presented in the Resilience Plus Podcast Episodes

Bravery. This strength is often described as the antithesis of fear (Rachman, 1990) and is demonstrated when an individual overcomes fear and failure. According to Gruber (2011) it is a cognitive process that "enacts change on a stable system for the intention of positive outcome(s)" (p. 274). It is our behavioural drive toward situations that engage fear or, to a lesser degree, hesitation and is typically demonstrated in times of uncertain outcomes that requires us to be courageous, creative and flexible (Jordan, 2005). Emotional strengths, like bravery, are particularly important for the development of resilience because they provide individuals with the necessary means to face adversity (Martinez-Marti & Ruchs 2017; Ruchs et al., 2010). Not surprisingly, emotional traits, and bravery in particular, are highly correlated with resilience (Martinez-Marti & Ruch, 2017).

Creativity. Like bravery, creativity is considered a cognitive process that is demonstrated when we need divergent thinking (Torrance, 1995), to distance ourselves from stress (Csikzentmihalyi, 1996) and when adapting to solve problems (Kirton, 1994). Unfortunately, most research examining resilience does not include creativity as an influential factor (Metzl & Morrell, 2008) and to the best of our knowledge creativity and its role in facilitating resilience, particularly in military populations, remains an under-represented area within resilience research.

"To experience love of learning, research suggests that people must feel (or expect to feel) some sense of competence and efficacy in the learning process. This means that they must get a sense of mastering a skillset, a sense of filling in the gaps in their knowledge and so on. The paradox, however, is that learning, by definition, also includes instances in in which we fail."

Gratitude. Gratitude has been conceptualized in a number of ways. Generally, it is defined as an experience of noticing and being thankful for the positive emotions, experiences, and outcomes in one's day to day life (Rashid & Seligman, 2018; Oduntan et al., 2022). This is sometimes labelled as dispositional gratitude. In military populations, demonstrating dispositional gratitude has a "dose-response" effect on psychosocial outcomes such as anxiety (e.g., post-traumatic stress disorder; social phobia), mood disorders (e.g., major depressive disorder), substance use/abuse (e.g., nicotine, alcohol) and suicidal ideation (Isaacs et al., 2017; McGuire et al., 2021; McGuire et al., 2022) whereby high levels of gratitude result in low levels of psychosocial outcomes (moderate gratitude leads to moderate outcomes; low levels of gratitude result in the most negative psychosocial outcomes).

Hope. This character strength is considered one of the foundational terms used in the description of positive psychology (Seligman, Steen, Park & Peterson, 2005) and is defined as a positive motivational state that arises when increased goal-directed energy (i.e., agency) interacts with goal-directed behaviour (i.e., a plan or pathway to meet goals;

Snyder, Irving, & Anderson, 1991). According to Snyder and colleagues (Cheavans et al., 2006; Snyder, Feldman, Taylor, Schroeder & Adams, 2000; Snyder, Rand & Ritschel, 2006) people display both approach goals (things we want to achieve, e.g., improving our health) and avoidance goals (avoiding a setback; e.g., barrier(s)to improving our health). Not surprisingly, high levels of hope are associated with being motivated to actively engage in behaviour that pushes us toward the things we want, and low levels of hope are associated with simply avoiding negative outcomes (Snyder, Feldman, Taylor, Schroeder & Adams, 2000; Snyder, Rand & Ritschel, 2006). In this way, when we employ hope as a tool, we are actively (both mentally and physically) and not passively developing our resilience. Interestingly, facilitating hope might be of use when military members transition from service to civilian life where large, and sometimes challenging adjustments in day-to-day life are required (e.g., Umucu et al., 2022).

Kindness. Kindness is a benefit multiplier. When demonstrated, kindness is for the potential betterment of other people, but we also reap the rewards of this character strength (Curry et al., 2018). Using kindness to foster personal and collective resilience means we recognize the dignity of others and can demonstrate emotions like empathy toward their well-being alongside our own. Not surprisingly, this character strength is considered a prosocial behaviour and is necessary among functioning groups (e.g., classrooms, offices, active deployments, etc.) In addition, demonstrating kindness can reduce the expression of avoidance goals (Trew & Alden, 2015) which were noted earlier when discussing hope. Interestingly, however, we do not always have to engage in the action of kindness as several lines of research indicate that simply recalling an act of kindness (whether demonstrated or received) can improve well-being (Aknin, Dunn, & Norton, 2012; Ko et al., 2021; Otake, Shimai, Tanaka-Matsumi, Otsui, & Fredrickson, 2006). However, kindness is not a commonly examined topic within leadership and military research fields and as such it remains an potential future direction of further exploration.

Love of Learning. This character strength is characterized as both a general individual difference and as a universal predisposition (Renninger et al., 2004). More specifically, love of learning describes the way in which a person engages with new information (i.e., whether they approach it openly, ready to absorb as much new knowledge as possible or whether they are avoidant and anxious when new knowledge is available). To experience love of learning, research suggests that people must feel (or expect to feel) some sense of competence and efficacy in the learning process. This means that they must get a sense

of mastering a skillset, a sense of filling in the gaps in their knowledge and so on. The paradox, however, is that learning, by definition, also includes instances in which we fail: where the information we thought was correct, turns out to be wrong, and or when we realize the current path we are on, will not work for us in the long run or in the end (Sansone & Morgan, 1992). Indeed, several lines of empirical science have demonstrated that love of learning is one of the character strengths needed for people to experience post-traumatic growth (Niemiec, 2012; Peterson & Seligman, 2003; Peterson et al., 2008; Tedeschi & Calhoun, 1995).

Perseverance. This character strength is defined as the process of sticking to a task regardless of obstacles and barriers that might arise during the completion of the task. It is synonymous with other trait labels such as tenacity, grit, and steadfastness. Perseverance is dependent on other traits such as hope, creativity, learning / work ethic, goal achievement and conscientiousness but is independent of traits such as intelligence (Duckworth et al., 2007). The connection between perseverance and resilience may seem inherent, but it is also supported by empirical research in a variety of fields. For example, research on candidates at the United States Military Academy, West Point, demonstrated that retention of cadets between first and second year (the most challenging/rigorous part of their time) was highest in those that had high 'grit' (Duckworth et al., 2007). Thereafter, the fast-paced nature of military operations requires members to be operationally ready in the face of stressful environments and maintain optimal levels of mental and physical performance over long periods of time. It is not surprising, then, that perseverance was noted several times by military leaders on the podcast.



Lieutenant-Colonel Luc-Frédéric Gilbert, JTF-U Commanding Officer, addresses the parade at a graduation ceremony at Kharkiv Air Force University on October 29, 2021 in Kharkiv, Ukraine.

Image by: Sergeant Alexandre Paquin, Canadian Armed Forces photo

Perspective. When we see the bigger picture and do not get overwhelmed by the minor details, we have demonstrated perspective. Again, this is a trait that is independent of intelligence but involves the capacity to maintain and use knowledge and critical thinking (Niemeic, 2020). It is one of the key character strengths that can buffer against the negative effects of stress and trauma (Park & Peterson, 2009), which are an inherent part of military service (e.g., Easterbrook et al., 2022; Straud et al., 2019). Additionally, perspective taking in its various forms (e.g., social, moral) is needed in the development of altruism - or the willingness to help others (Underwood & Moore, 1982). While conveyed as important by leaders on the podcast episodes, perspective does not appear to be a skill that is easily trained. It takes time to naturally develop and is something that must be practiced (Eyal, Steffel, & Epley, 2018) over time before we can use and demonstrate it effectively. This might be an opportunity for future military training and resilience research.

Prudence. Another important theme of resilience is found in the demonstration of prudence. While some interpretations of prudence see it as maladaptive and in opposition to resilience (e.g., Littleton et al., 2007; Mushonga, Rashid & Anderson, 2020), this character strength is a self-preservation technique that can protect people who rely on it from future stress or harm (LaMotte et al., 2016). More generally prudence is demonstrated when we are careful in our decision making and avoid unnecessary risk. It is synonymous with practical knowledge or practical wisdom (Connelly & Connelly, 2013). In terms of military leadership, this skill is dependent on 'situational awareness' (see Launder & Perry, 2014; Marusich et al., 2016; Catherwood et al., 2012; Goodwin et al., 2018) and is not only important for one's own professional/personal livelihood and resilience but also for the well-being of one's subordinates (Knighton, 2004).

Self-Regulation. Finally, self-regulation is a multidimensional construct that involves both basic physiological functions (e.g., regulation of stress hormones by the sympathetic nervous system) and complex cognitive functions (e.g., contemplating/gauging an appropriate reaction to stimuli; Bandura 2001; Gestsdóttir et al., 2014; McClelland et al. 2015). As such, it is important for all aspects of a person's ability to adapt (i.e., alter their emotions, thoughts, behaviours and physiology; McClelland et al., 2018) and is an inherent part of functionality within the Canadian Armed Forces. For example, research by Weltman and colleagues (2014) examined the usefulness of a stress resilience training system app in police and military officers. Their research found that training programs that include practical self-regulation skills improve psychological wellness in both law enforcement and military personnel (Weltman et al., 2014).

Why You Should Listen to Stories of Resilience / The Power of Storytelling

Work environments where military leaders demonstrate personal resilience are often more productive and healthier overall (e.g., Ihme & Sundstom 2020; McHugh, 2013). One way in which leaders can demonstrate resilience is by talking openly about the topic. This form of communication and the use of narratives (or storytelling) makes complex concepts easier (Suzuki et al., 2018) and increases our overall understanding of a topic. In addition, listening to how a colleague/superior speaks about a topic allows for a more authentic connection between presenter and listener (Suzuki et al., 2018). Thus, the Resilience Plus Podcast episodes presented by leaders within the Canadian Armed Forces in which the topic of resilience is discussed can

increase the overall understanding of resilience. In addition, listeners gain resilience tools and knowledge by listening to what has worked for others in similar lines of work. These later insights might be particularly useful in identifying sustainable and effective opportunities for resilience development and maintenance. It also provides an accessible means for leaders to relay information to more people than their direct team, thereby having a broader impact on resilience development overall. However, as we continue to listen to these stories of resilience on the Resilience Plus Podcast, we recognize the need for a more specific qualitative thematic analysis of this content. This type of precise analysis will help clarify specifically how leaders experience resilience and how they convey this personalized knowledge to their teams and younger members serving in the Canadian Armed Forces. CMJ Canadian Military Journal

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(Foreground) Corporal Aaron Adkin and his fiancé Katherine Lackey embrace for the first time after Corporal's return to Canada.

Image by: MCpl Shilo Adamson

Is it Time for the CAF to Focus on Mindfulness?

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INTRODUCTION1

Mindfulness (or présence attentive in French)² has been gaining popularity since the Mindfulness-Based Stress Reduction (MBSR) program was created in 1979. More recently, the work of Elizabeth Stanley, Ph.D., and Amishi Jha, Ph.D., has been used to develop mindfulness-based interventions (MBI) for the U.S. military. Mindfulness-Based Mind Fitness Training (MMFT) and Mindfulness-Based Attention Training (MBAT) have introduced the concept of mental training to the armed forces. Mindfulness is being studied by military organizations in the United Kingdom, Germany, Belgium, Spain, the Netherlands and Norway.³ And what about the Canadian Armed Forces (CAF)? According to a recent analysis, the CAF has not conducted any studies or experiments on mindfulness, despite its potential.⁴

Leadership is essential to military professionalism, which is informed by the ethos of the profession.

The CAF Ethos comprises seventeen elements categorized as three ethical principles, six military values, and eight professional expectations [...] [which] must also be embodied by all military professionals, at all times. The CAF Ethos defines our professional conduct, shapes our professional judgment, and frames our performance expectations.⁵

Leadership in the CAF therefore consists of "directing, motivating, and enabling others to accomplish the mission professionally and ethically."⁶

However, government reports and the media describe an institutional crisis marked by systemic misconduct, and both call for a major culture change in the Canadian military.⁷ The problem is not new,8 and it persists despite several initiatives, such as the 2015 Deschamps report and Operation HONOUR, aimed at eliminating sexual misconduct.9 In May 2022, the Report of the Independent External Comprehensive Review of the Department of National Defence and the Canadian Armed Forces, conducted by former Supreme Court Justice Louise Arbour, revealed that the CAF "remains insular, closed [...] and rarely exposed to the broader civilian organizational culture [...] oblivious to the societal forces that have compelled changes elsewhere [...] at odds with an increasingly interconnected world."10 The CAF has the moral obligation to adhere to "the societal imperative [that] demands that the military [...] reflects, to an appropriate degree, societal values and norms."11 It is therefore reasonable to conclude that the measures taken to date have been insufficient to effect an in-depth transformation of military culture.¹²

Given these facts, this article will discuss the transformative potential of mindfulness as a leadership development tool.¹³ According to some authors, the use of MBIs is effective in training leaders.¹⁴ The goal of the following analysis is to assess the utility of these interventions in the context described and examine the issues associated with their implementation. The proposed examination centres on this question: could

MBI help transform the CAF to foster professional and ethical behaviour in its members? First, the concept of mindfulness will be defined in both religious and secular terms. MBIs developed in a military context will be described. Then, in light of this theoretical framework, the benefits and limitations of MBIs will be discussed to assess their relevance to Canadian military members. Lastly, a recommendation will made be to explore mindfulness in the context of a pilot project whose purpose is to test an existing intervention with a sample of the Canadian military population.

As indicated by the establishment of a Chief of Professional Conduct and Culture (CPCC) for the CAF:

We cannot apply the same "solutions" to culture change we have in the past and expect a different outcome. Therefore, we must fundamentally consider a new approach [...] [and] establish comprehensive strategies to create a healthier [...] organizational culture.¹⁵

Because there is little work being done on mindfulness in the CAF, this article offers a new perspective. The potential of mindfulness lies in the fact that it focuses on mental habits, thoughts, emotions and automatic reactions. In the long term, these observations will help people adopt conscious responses that are better adapted than the automatic reactions conditioned by past experience, culture, bias and personality traits. Be it in developing self-awareness or emotional intelligence of strengthening leadership character, mindfulness helps train the mind and promote change in habits and attitudes. Right there, in the liminal space between stimulus and response, lies the transformational capacity of this approach.

Definitions

Mindfulness: Buddhist definition

First defined in *The Establishing of Mindfulness Discourse*,²⁰ mindfulness involves contemplating the body, feelings/emotions, states of mind and experiential phenomena.²¹ It is part of a broader framework that involves learning wisdom, ethics and meditative

concentration.²² According to those teachings, bare attention to the four foundations enables a person to observe mental function, and the three trainings lead to discernment, or a clearer understanding of phenomena.²³ Within this tradition, the potential of mindfulness rests on a combination of the three trainings,²⁴ and neglecting that framework would negate the practice's transformative qualities, stripping it of its moral foundations.²⁵ That risk poses a double problem for the proposed analysis: first, because it considers that potential to be a point of interest for creating a healthy military culture within the CAF, and second, because secular definitions of mindfulness often disregard the Buddhist framework and its three trainings.

Mindfulness: Secular definitions

Mindfulness was introduced to the West by monks from various Buddhist traditions. In the 1970s, American scientists began to study the physiological effects of meditation. One of them was Jon Kabat-Zinn, who developed MBSR at the University of Massachusetts faculty of medicine.²⁶ MBSR was the subject of empirical research, from which an initial operational definition of mindfulness was drawn in 2003. According to that definition, mindfulness is "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment."27 Another definition, by Bishop and his colleagues, includes details regarding the attitudes inherent in Buddhist tradition. According to them, mindfulness involves welcoming one's experiences in the present moment with curiosity, openness and acceptance.²⁸ They add that mindfulness is mental training that helps reduce one's cognitive vulnerability to reactive modes of mind.²⁹ This idea paved the way for the work of Jha and her colleagues, who developed an operationalized neuroscientific definition in a military context: "Mindfulness is a mental mode characterized by full attention to present-moment experience without judgment, elaboration, or emotional reactivity."30

While mindfulness is based in religious, ethical and ancestral tradition, it is now evolving in a secular, scientific and emerging context. Both are of value to the CAF. The first, because the CAF is contending with ethical behaviour issues; the second, because of the complexity of military operations and the importance of mental training to strengthen overloaded cognitive resources. We will come back to those elements, but first we will describe the MBIs that have been developed from the above-mentioned definitions.

MBIs: MBSR, MMFT and MBAT

Three types of MBI are described below. MBSR is the foundation of the following two types of interventions; MMFT and MBAT target the armed forces.

Mindfulness-Based Stress Reduction

MBSR is the intervention cited most often in scientific studies due to its clearly defined protocol.³¹ The program is eight weeks long, with weekly 2.5 hour sessions within a community of practice. It includes an individual interview, a one-day silent retreat and participant engagement in a daily 45 minute guided meditation session. MBSR has secularized Buddhist meditation traditions and serves as a reference for new MBIs. Participants observe the four foundations of mindfulness with a beginner's mind, non-judgment, non-striving and acceptance.³² The aim of the practice is to extricate oneself from being on autopilot, cultivate presence and develop a different relationship with experiencing thoughts, emotions, sensations and situations.³³ Though it is secular, MBSR conveys the values of its Buddhist frame of reference.³⁴ As such, it could hold the potential for transformation sought by the CAF. However, it does not target the characteristics of a military population exposed to potentially traumatic stress.³⁵

Mindfulness-Based Mind Fitness Training

MMFT is derived from MBSR and is adapted to the military profession. According to Elizabeth Stanley, Ph.D., the profession of arms comes with challenges that traditional MBIs cannot target. 36 Dr. Stanley, who is a former U.S. Army intelligence officer, considers the unique character of the profession, including the use of force and unlimited liability. 37 Prolonged exposure to these stress factors increases the prevalence of psychological and physiological issues among this population. 38 The risk is exacerbated by a culture that values suppressive coping mechanisms, where suffering in silence and toughening up have long been part of the professional expectations. 39 According to Larsen and Stanley, in the long term, these attitudes contribute to aggression, violence, abuse and harassment. 40 This is an important point for anyone whose aim is to counter such behaviour.

MMFT takes into account the risks associated with trauma and the increased potential for emotional dysregulation when observing thoughts, feelings and emotions. It helps subjects shift from dysregulation to regulation, facilitating decision making in the chaotic situations typical of military operations. ⁴¹ Using a protocol similar to that of MBSR, the intervention proposes 30 minutes of meditation every day. ⁴² It provides instructional content on resiliency, stress response and application of mindfulness in a military context. ⁴³ It also helps a person develop their self-regulation by mitigating impulsivity, habitual and emotional responses, biases and other perceptual filters when they do not align with the objectives. ⁴⁴ These effects are promising, especially when we seek to replace *objectives* with the *principles* of the Canadian military ethos.



Part of the crew of His Majesty's Canadian Ship OTTAWA, of Motor Vessel (MV) ASTERIX and representants of the Philippines's Navy are participating in a Terry Fox run in Subic Bay, Philippines, on 17 September 2023.

> Image by: Master Sailor (MS) Marilou Villeneuve-Last, Canadian Armed Forces Photo

Mindfulness-Based Attention Training

Since 2008, MMFT has been the subject of studies funded by the U.S. Department of Defense; these studies have been conducted on military cohorts by neuroscientists such as Amishi Jha, Ph.D. That research has confirmed the expected benefits in a pre-deployment context. The data show that meditation provides enhanced cognitive, emotional and physiological resources to expand an individual's tolerance window and facilitate adaptive functioning before, during and after high-demand and high-stress situations. From a neuroscience perspective, mindfulness is mental training to protect and strengthen attention, Tiene it acts by calming the default mode network, i.e. the midline of the cortical area of the brain. As hyperactivity in this area of the brain is associated with anxiety, depression and inflexibility, equilibrium of the default mode network is enhanced by practising mindfulness.

In light of these benefits, the U.S. Army wanted to condense the intervention while maintaining the cognitive gains observed. Jha and her colleagues reduced the MMFT protocol to four weeks, with a total of eight hours of workshop time and fifteen minutes of meditation a day.⁵⁰ Dr. Jha developed MBAT as a result. However, studies show that frequent practice is essential in reaching the objectives.⁵¹ At the request of the U.S. Army, Dr. Jha endeavoured to find the minimum effective dose that could be offered as quickly as possible to the largest possible number of people, while also being "the lightest, most compact, most impactful" version.⁵² Using studies conducted with

U.S. special forces, she identified the best prescription: twelve minutes of meditation, five days a week.⁵³ However, according to some critics, such an approach based on efficiency, calculability, predictability and results monitored by non-human technology (e.g. brain imaging) reduces mindfulness to a simple "McMindfulness."⁵⁴

There is certainly a difference between the frameworks for MBSR and MBAT. MBSR reflects the Buddhist attitudes of a beginner's mind, non-judgment and acceptance, and it values a "way of being," by while MBAT, which is anchored in science and efficiency, aims to optimize operational performance and mental skills, with no regard for the ethical foundations and attitudes of the practice. Both approaches are relevant to the CAF, though each has limitations. MBSR is not adapted to the target population, while MBAT has been stripped of the frame of reference needed to tap into its transformative potential. Which approach would be better for the CAF? Before answering this question, let us seek to understand some benefits and limitations of MBIs for the Canadian military population.

Benefits and limitations of MBIs for the CAF

The following section presents four general benefits and their respective limitations. This is not an exhaustive list, but merely some interesting avenues in light of the issue at hand.

Developing adaptive skills

Military operations are information-dense, fast, volatile, ambiguous, uncertain and decentralized. Adaptive skills are essential, and each military member is called upon to use supplementary methods of processing information in addition to conventional thought processes. ⁵⁶ Some authors acknowledge that mindfulness is positively associated with enhanced behavioural flexibility, enabling leaders to avoid automatic reactions and respond to situations flexibly and appropriately. ⁵⁷

Despite the importance of adaptive skills, military training traditionally depends on drills and indoctrination to produce a "predictable response to a predictable situation." It aims to develop automatic responses to enable soldiers to react promptly in a combat situation. As such, the "deprogramming" of certain automatisms may meet with some resistance from the military community and may be considered a threat to mission success.

Developing mindful, authentic and ethical leadership

Some researchers suggest a correlation between mindfulness, behavioural flexibility and the development of mindful leadership associated with an authentic and ethical character.⁶⁰ According to Baron and Baron, authentic leaders interact in a manner that involves little of their ego.⁶¹ However, the hierarchical nature of the military and its individual recognition mechanisms⁶² foster the development of self through accomplishments (doing) rather than intrinsic qualities (being). Some initiatives to transform the CAF have been

coloured by the dynamics of power, privilege and social hierarchy,⁶³ which can limit the authenticity of MBI participants.⁶⁴ That is an obstacle to developing mindful leadership.

Developing metaconsciousness

The CAF Leadership Development Framework consists of five meta-competencies.⁶⁵ The inclusion of mindfulness would add metaconsciousness to the list. Mindfulness aims to observe the self in a detached and decentred manner. It fosters the development of a metaconsciousness, which contributes to cognitive flexibility.⁶⁶

The armed forces often train members of the profession as a whole. Conversely, developing a metaconsciousness is a personal process wherein the one-size-fits-all concept does not apply. Therefore, one might think that being made to participate in an MBI could have negative effects. For example, the military cohorts that contributed to MMFT studies were obligated to participate, while participants in MBSR studies are generally volunteers. This means that the motivation of the first group seems to be extrinsic and that of the second group more intrinsic. Such an obligation may deprive participants of their fundamental right to informed consent.⁶⁷ Mandatory training does not always inspire the commitment sought within the CAF; this has been the case with annual Defence Ethics Program training and Operation HONOUR, which addresses sexual misconduct.⁶⁸ To target the development of metaconsciousness, MBI implementation must avoid the trap of mandatory training.



Captain Brooke Blogg, Contract Officer deployed on Operation IMPACT poses for a photo at Ali Al Salem Air Base, in Kuwait on February 1, 2022.

> Image by: Sailor 1st Class Anne-Marie Brisson, Canadian Armed Forces photo

Developing ethical skills

The CAF regulates the behaviour of its members through various means, such as the Code of Service Discipline, the Department of National Defence and Canadian Forces Code of Values and Ethics, and the military ethos.⁶⁹ In light of the repeated instances of misconduct, while these standards frameworks are essential, they appear to be insufficient.

The ethics training underlying the moral foundations of mindfulness provides clear guidelines for ethical conduct. The latter is based on right speech, right action and right livelihood. Many believe that these components, while not explicit, would be included in MBSR. MMFT proponents, however, see the militarization of mindfulness as an opportunity to mitigate the damaging effects of war, as regulation of one's emotions and attention would have protective effects that could prevent unethical conduct and improve ethical decision making.

The correlation between mindfulness and ethical conduct is interesting. However, it does require further research, because the ethical component of the Buddhist frame of reference is one of the less clearly articulated aspects of the secularized teaching of mindfulness. The tus recall that the secularization of the practice may reduce a transformative Buddhist ethical system to a simple "McMindfulness. The would therefore be beneficial to retain an ethical frame of reference when implementing an MBI within the CAF. Of course, the Buddhist ethical framework would not be appropriate for a secular and public organization.

Paradoxically, one of the limitations of mindfulness for the armed forces lies in the ethical foundations of the practice. According to the concept of right resolve, mindfulness is a non-violent practice.⁷⁶ It might therefore be assumed that right resolve is incompatible with the military profession. However, the theory of "just war" and the law of armed conflict make this premise more nuanced.⁷⁷ Some authors do raise issues with the morality of introducing mindfulness to the armed forces.⁷⁸ The example of a sniper regulating their breathing before pulling the trigger and that of Japanese elite troops using meditation in the Second World War demonstrate the danger of turning mindfulness into a weapon of war.⁷⁹

Recommendations

The purpose of this article was to better understand the potential of MBI to contribute to the professional and ethical conduct of CAF members. It is important to remember that mindfulness is a relatively new scientific field and that a nuanced approach is essential. Despite the promising effects observed, the evidence continues to be criticized, particularly

due to the methodological problems associated with the research.⁸⁰ Van Dam and his colleagues point out that mindfulness is not a panacea, despite claims made by some media (for example, *Time Magazine*).

In spite of this warning and the limitations identified, the benefits of mindfulness are many, and it would be useful for the CAF to invest in research as some of our allies have done. The approach proposed here involves MBI experimentation within the framework of a pilot project. Because MBSR is the best-documented and most accessible approach, it would be an appropriate choice for a study with a sample of the Canadian military population.⁸¹ In the first phase of the project, the program would be offered to volunteers as part of the self-development pillar of the CAF Professional Development framework.⁸² It would target officers and senior ranking members, since they are the stewards of the profession of arms. 83 In the short term, MBSR would strengthen Personal Development and Stress Management and Resilience skills.⁸⁴ In the second phase, the effects of the intervention would be evaluated through participant interviews (qualitative methodology) and a questionnaire to assess mindfulness (quantitative methodology⁸⁵). The Five-Facet Mindfulness Questionnaire is a valid and reliable psychometric tool, particularly for populations that are new to meditation, which seems appropriate here. 86 In the third phase, the results of the questionnaire would indicate the usefulness of the intervention selected, and they could be used to assess the requirements for an MBI adapted to ethical issues. The crisis within the CAF could be an opportunity to contextualize mindfulness within the ethical, professional and secular framework of the Defence Ethics Programme and Canadian Armed Forces Ethos: Trusted to Serve. In returning to the initial eight-week format, while also integrating instructional content specific to the military ethos and military ethics, new experiments would test an MBI prototype: Mindfulness-Based Ethics and Ethos Training (MBEET). This approach would target Ethical Reasoning and Commitment to Military Ethos skills.87 Lastly, the constructivist approach sets out that virtue must be developed gradually; as such, ethics and ethos training by means of mindfulness could eventually be added to several levels of the Leadership Development Framework.⁸⁸ This would allow for the practice of mindfulness to be expanded within the CAF while helping transform military culture. An MBI that targets ethical skills would help advance research by enabling researchers to empirically study "the conduct of practical morality in secular mindfulness teaching and learning," which is a field that has not yet been fully explored.89

Conclusion

If social change is developed one mindful individual at a time, ⁹⁰ the collective is essential to the transformation of military culture. Beyond the individual,

Mindfulness training should be part of a wider strategy to address systemic issues and promote a healthy organisational culture. When people learn mindfulness in groups, organisations and communities, it can become a collective as well as an individual change process that supports the establishment of new mindsets, norms, practices and processes that promote wellbeing and creativity. When mindfulness is introduced strategically in the context of government policy-making there can be wider social impacts. 91

An MBI would therefore be more effective if it were widely implemented. According to David Forbes, one must consider two modes of mindfulness: intersubjective (values, feelings, culture, etc.) and interobjective (systems, networks, environment, etc.).

In light of the cultural and endemic nature of the misconduct described, the integration of these two modes would maximize the chances of a structural and systemic transformation by targeting the deep-seated causes of the problem.⁹³

Lastly, to quote the CPCC, Lieutenant-General Carignan, is mindfulness not "a new approach" to enable the CAF to avoid applying "the same 'solutions' [...] we have in the past" and use "comprehensive strategies" to transform military culture?94 This is something to reflect upon, and research would help us better understand the potential of mindfulness for the CAF. Whether it is used to regulate emotions, to develop character, ethical reasoning and resilience, or to improve focus and cognitive performance, mental training is essential for leaders in the 21st century. The military ethos statement published in May 2022 is unequivocal on this point: "We need to develop high levels of resilience. We need physical, mental, and spiritual abilities to cope with and recover quickly from shock, stress and hardship."95 This is essentially what Canada's allies are betting on by investing in mindfulness research. When will the CAF do the same? CM Canadian Military Journal

Notes

- 1 The author would like to thank the anonymous reviewers of this article for their constructive comments, from which some of the ideas presented here have been drawn.
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Members of the Togo Military Police conduct training aboard HMCS MONCTON off the coast of Ghana during Exercise OBANGAME EXPRESS as part of Operation PROJECTION on March 12, 2022.

Image by: Corporal Jaclyn Buell, Canadian Armed Forces photo

Governed Engagement: Why the Department of National Defence Would Benefit From Increased Governance of its Defence Capacity and Institution Building Efforts

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INTRODUCTION

As part of outlining its strategic vision for Canadian defence within Strong, Secure, Engaged: Canada's Defence Policy, the Government of Canada identified clear linkages between Canada's defence activities and its security and prosperity.¹ These linkages were reinforced by the assignment of core missions to the Department of National Defence and Canadian Armed Forces (DND/CAF). These include defending North America, leading and contributing forces to the United Nations and the North Atlantic Treaty Organization, and contributing to international security through defence capacity building and defence institution building (hereafter collectively referred to as DCIB).² While the efforts associated with each of these tasks differs, they all require time and consume finite resources, which constrains DND/CAF's ability to undertake other activities. This limitation necessitates considering, prioritizing, and balancing DND/CAF's DCIB activities to ensure they best advance Canada's strategic security interests.

This paper recommends establishing a steering committee within the Defence Governance Framework (DGF) to direct DND/CAF's DCIB activities given:

- the myriad of stakeholders, risks, and resources involved in these activities;
- 2. the limited coordination between these stakeholders; and
- 3. the lack of clear priorities which may hinder DND/CAF's ability to leverage opportunities that might better secure Canadian strategic security interests.³

As part of justifying this recommendation, this paper will initially define DCIB and outline the strategic value it can bring Canada before discussing some of its associated challenges. From there, this paper will focus on governance and how governance can enable senior leaders to exercise shared leadership when working collaboratively to achieve organizational goals. It is through this shared leadership that governance can support DND/CAF's efforts to prioritize and coordinate its DCIB activities and align them with the Department's other important efforts. This paper will then discuss various ways DND/CAF could organize its DCIB governance. Finally, the paper will consider some of the negative repercussions associated with not exercising governance over DND/CAF's DCIB efforts or providing such governance in a disjointed fashion by leveraging the Department's existing DGF events.

DCIB

Defence capacity building involves "activities undertaken by the CAF to assist in the development of the operational capabilities of approved partner defence and security forces in order to increase the effectiveness and legitimacy of those forces." Defence capacity building complements defence institution building, which is "undertaken by the DND to assist in the development of defence and security Ministerial institutions of approved partner nations to enhance their legitimacy and effectiveness." DCIB supports Canadian strategic security interests by increasing the ability of Canada's partner nations to contribute to stability and rules based international order within their territory, regions and potentially globally as their capabilities expand. DCIB also helps deepen Canada's relationships with these partners, which affords opportunities to promote non-security-related interests, such as establishing trade pacts and advancing the Government of Canada's Women, Peace, and Security agenda.

Canadian DCIB comprises tactical and operational-level activities that produce operational and strategic-level effects. These effects contribute to DND/CAF's overall efforts to secure Canada's strategic security interests. DND/CAF's current DCIB efforts include providing tactical-level training and mentorship to members of the Ukrainian, Jordanian and Lebanese Armed Forces. They also include participating in NATO and American-led ventures to increase the Palestinian Authority Security Forces and Iraq Armed Forces' sustainability through ministerial and institutional-level advising.

Numerous DND/CAF organizations are involved in DCIB, including the Canadian Joint Operations Command (CJOC), the Assistant Deputy Minister (Policy) group (ADM(Pol)), and the Canadian Defence Academy.^{6, 7, 8, 9} These stakeholders frequently conduct DCIB activities in the same countries and regions with limited awareness of the others' undertakings. This reduces DND/CAF's ability to create synergies that might otherwise extend the strategic and operational effects these efforts produce. This lack of awareness also dilutes DND/CAF's ability to showcase its contributions to Canadians and Canada's international partners.

Although the Government of Canada may direct DND/CAF to conduct DCIB for a myriad of purposes, DND/CAF's DCIB efforts should advance Canadian interests while also supporting the partners' identified requirements.¹⁰ These requirements could range from addressing training and capability shortfalls to assisting the partner nations' defence and security organizations with developing the knowledge, structures, policies, military

education systems, and legal frameworks they require to effectively and sustainably deliver their mandates.

It is expected that the requirements of Canada's partner nations will evolve as they address their identified shortfalls. In light of this, the Government of Canada must be prepared to adapt its DCIB efforts to maintain their relevancy to the partner nation if it believes continuing to provide this support will further Canada's interests. Should the Government of Canada choose to continue supporting its partner nations' development, the evolution of DND/CAF's efforts should be based on an understanding of their relative importance to Canada and whether these efforts will remain sustainable for DND/CAF. Such an understanding will best support the government and DND/ CAF's ability to confirm the "Ends, Ways and Means" associated with maintaining Canada's relationships with its DCIB partners. It will also help identify whether these efforts should grow to include other organizations, like other Canadian government departments, non-governmental organizations, or private sector entities.

Such expansions occurred on Canada's mission to support Palestinian Security Sector reform and Palestinian-Israeli defence cooperation (Operation PROTEUS) in 2022. Specifically, DND/CAF's task force in Jerusalem grew to include Canadian Border Services Agency participation. Despite the value that this participation brought Operation PROTEUS, significant effort was required from DND/CAF to secure this support. While Operation PROTEUS' evolution highlights that other departments can and do participate in DCIB, clear governmental direction would assist efforts to secure such interdepartmental participation given that Canada's other departments must divert resources away from their core mandates to support DCIB.

Regardless of the level of interdepartmental interest and involvement in DCIB, clear governmental authorities and direction are essential for its success. These are conveyed through a number of different means, including Memorandums to Cabinet, Treasury Board submissions, and Ministerial direction. These documents outline the strategic objectives to be met, from which departments infer governmental priorities. In some instances, these documents may also constrain how departments must deliver their mandates by imposing conditions like personnel and funding limitations. Considerable latitude is afforded to the departments and agencies in this process as they are often involved in the development of these documents and are generally responsible for determining how their assigned strategic objectives will be met. To borrow from Arthur Lykke's "Ends — Ways — Means" strategic framework, the government identifies the "ends," while the departments

"Should the Government of Canada choose to continue supporting its partner nations' development, the evolution of DND/CAF's efforts should be based on an understanding of their relative importance to Canada and whether these efforts will remain sustainable for DND/CAF."

and agencies' senior leaders determines the "ways and means" (subject to any constrains imposed by the government).

The selection of these "ways and means" is often complicated by the regionalization of policy development and mission planning within DND/CAF and the fact that numerous organizations are involved in these efforts. Each stakeholder organizations involved in these efforts may have their own opinions and preferences on the forces and the approaches used to achieve the Government's identified objectives. The cleavages between these stakeholders become apparent when decisions must be taken to commit low-density, high-value capabilities to DCIB activities, such as senior officers and specialists.

Despite DCIB's utility, it frequently requires a disproportionally large number of leaders and specialists in comparison to other operational defence efforts. This is due to the knowledge and experience that is required to effectively conduct DCIB. The demand for these personnel becomes even greater with defence institution building efforts as they require even greater levels of experience and knowledge. Efforts to source large numbers of suitable personnel for DCIB often face considerable resistance from other DND/CAF elements given their requirement for employing these personnel to accomplish other important tasks. Clear direction and priorities would help address this staffing challenge by confirming the extent to which CAF/DND can undertake DCIB.



The Canadian Training
Assistance Team —
Lebanon assists members of the Lebanese
Armed Forces with an inventory count of
materials received
from Canadian supply,
September 9, 2020.

Image by: MCpl J.W.S Houck, JTF-I — Public Affairs

Leadership across DND/CAF's organizations is required to ensure that the effective generation and execution of DCIB occurs in a timely manner and that these activities best support the achievement of Canada's strategic security interests. Unnecessary resources and effort may be wasted if these efforts are not coordinated and aligned with other defence initiatives. Wasting resources through avoidable inefficiency prevents DND/CAF from dedicating these resources and effort to improving the impact of on its DCIB efforts or to advancing other critical activities, including reconstitution. While the Chief of the Defence Staff (CDS) and Deputy Minister (DM) set DND/CAF's overall priorities and collectively have authority over its subordinate (Level 1) organizations, the prioritization, resourcing and conduct of DCIB should generally not rise to their level. This is because such discussions would distract the CDS and DM from fulfilling their overall departmental leadership responsibilities. Rather, such discussions can and should occur at lower-levels of DND/CAF as numerous leaders across the Department are empowered to take such decisions on their organizations' behalf. The creation of a steering committee within the DGF would bolster these leaders' ability to collectively prioritize, resource, align and coordinate DND/CAF's DCIB efforts. It would also provide these leaders with a clear understanding of their organization's responsibilities in relation to these activities.

Governance

The Government of Canada defines governance as "[t]he management structures and processes that support the development, implementation and enforcement of policies,

programs and activities."11 Doctors Monique Cikaliuk, Ljiljana Eraković, Chris Noonan and Susan Watson from the University of Auckland and Doctor Brad Jackson from the University of Waikato note that "[i]n terms of practice, corporate governance provides a formal structure for the relationships among organisational core constituencies, whereas leadership provides the energy and determination to make corporate governance effective in the achievement of the organisation's purpose and goals."12 As part of extending their framework linking corporate governance and leadership, Doctors Cikaliuk, Eraković, Noonan, and Watson identified that governance forums also provide a venue for exercising shared leadership within organizations whereby the individual members of such committees "rely on skills, knowledge and expertise to exercise individual leadership among one another to meet shared goals and objectives."13

DND/CAF executes its governance functions through the DGF, which consists of numerous committees. These committees support senior executive decision making, document strategic intent, and align functional efforts, such as policy development. Establishing a DCIB steering committee within the DGF would enhance DND/CAF's ability to direct and steer its DCIB efforts by providing a forum for the Department's senior leaders to consider the relative strategic value of these efforts and establish priorities to guide future departmental efforts in relation to these activities. Considering DCIB at this level would help DND/CAF align the resourcing of its DCIB efforts with their relative value to the Government of Canada. It would also support the development and renewal of DCIB-related mandates with a global, rather than a regional, perspective.

This would better ensure that DND/CAF and Government of Canada resources are best utilized to advance Canada's strategic security interests. This includes potentially redirecting resources towards newly identified opportunities once they are authorized by the Government of Canada.

In Capacity Building: Delivering Non-Commissioned Officer Mentoring and Training, CJOC recommended basing the structure and mandate of a DCIB steering committee around what the Ukraine Steering Committee employs. 15 Prior to Russia's illegal invasion of Ukraine, this committee met monthly to consider and provide direction related to key issues like the organization of Canada's DCIB mission in Ukraine (Operation UNIFIER), the authorities required to achieve its mandate, and its Memorandum to Cabinet renewal. It was co-chaired by the Strategic Joint Staff's Director of Staff, CJOC's Deputy Commander, and ADM(Pol) (or Director General International Security Policy on ADM(Pol)'s behalf), and included high-level representatives from across DND/CAF.¹⁶ The formation of this committee helped align the support DND/CAF provided for Ukraine when CJOC and ADM(PoI) were assigned responsibility for different parts of the mission.

While the Ukraine Steering Committee helped align and coordinate DND/CAF's Ukrainian efforts, the breadth and number of Canada's DCIB activities may be too expansive for a single committee. An alternative model that may better support DCIB governance needs is the Infrastructure and Environment Board (IEB). The IEB is a strategic-level board that considers and prioritizes DND/CAF's infrastructure and environmental requirements.¹⁷ It is enabled by several sub-committees that focus on different aspects of infrastructure and environment support and provide recommendations for consideration and ratification by the IEB.¹⁸ Adopting a similar model for DCIB governance would free up DND/CAF's senior leadership to focus on steering and directing the most important issues, and leveraging any sub-committees' analysis and recommendations.

A major benefit of adopting such a structure is that DND/CAF could more fulsomely understand the implications associated with the options it develops and recommends to the Government of Canada for future DCIB mandates. This would address the currently stove-piped development of such mandates, which stems from the regionalized nature of DND/CAF's policy development and planning. This regionalization can lead to options being developed in isolation and that do not consider the tentative resourcing or relative strategic value of other DND/CAF activities, including those under development. While the formation of a DCIB steering committee would not fully address this challenge, it would provide a centralized

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forum for prioritizing, aligning, and coordinating its DCIB efforts. It would also better enable DND/CAF's senior leaders to recognize potential high-value DCIB opportunities. It is expected that earlier recognition of these opportunities by DND/CAF's senior leaders would reduce the time required to present them to the Government of Canada for its consideration and approval.

The formation of such a committee would also not necessarily improve interdepartmental participation in DCIB; however, it would support DND/CAF's understanding of where such support could enhance their value. This would bolster DND/CAF's ability to showcase how these other departments' participation in DCIB could help support efforts to secure Canadian strategic security interests. This in turn would assist DND/CAF's efforts to secure greater involvement and support from these other departments when DCIB-related options are formulated and recommended to the Government of Canada for future mandates.

While the formation of an interdepartmental DCIB steering committee falls outside the scope of this paper, consideration should also be given to forming such a committee. This would similarly enable the departments undertaking DCIB to prioritize, coordinate, and align their activities. It is expected that this would increase the Government of Canada's ability to identify synergies that better secure Canada's security and non-security-related strategic interests. It would also enhance the other Canadian departments' understanding of how they could augment these efforts and help identify areas where DCIB could support the achievement of the other departments' mandates or where these efforts could be delivered more efficiently via other means, such as contracting.



The Roto 10 Operation
UNIFIER Engineer
Development Team (EDT)
advises the National
Guard of Ukraine (NGU) in
demolitions ranges as part
of Sapper Level 1 Training,
3 November 2020, in
Zolochiv Ukraine.

Image by: Avr Melissa Gloude, Canadian Armed Forces Imagery Technician

Alternative Approaches

Given the numerous committees that already exist within the DGF, one may conclude that DND/CAF could direct its DCIB efforts by assigning additional responsibilities to its extant committees. While this may better focus aspects of DND/CAF's DCIB and alleviate the requirement for additional governance events within the DGF, overseeing and directing DCIB via such a decentralized approach would continue to limit the overall coherence of DND/CAF's DCIB governance. This is because individual committee efforts, insights, and understanding wouldn't necessarily contribute to other committees' thinking and decisions. This increases the risk of the committees creating unnecessary dissonance and diluting the strategic effect DND/ CAF seeks to create through DCIB. It also increases the risk of the Department seeking authorities that are misaligned with the desired strategic effects and may lead DND/CAF to contribute unnecessary personnel and resources to lower priority activities while similarly under-resourcing more impactful initiatives.

As DND/CAF's DCIB efforts currently meet the government's needs, a separate argument can be made that they do not require additional governance. The principal difference between this argument and the one previously discussed is that the Department's DCIB governance responsibilities would remain highly fragmented, with stakeholders executing their activities

with unclear priorities and minimal alignment and awareness of other efforts. While the Department currently executes DCIB in this manner, failing to establish DCIB governance will continue hindering DND/CAF's ability to more efficiently execute these activities. This is wasteful and reduces the Department's ability to maximize its DCIB strategic effect considering DND/CAF's limited resources. Operating in this manner also reduces the Department's ability to support other efforts through the synergies it could create and resources it could free up by more efficiently executing DCIB activities.

Conclusion

Although DND/CAF continues to execute DCIB activities within numerous nations in spite of the previously mentioned prioritization, coordination, and resourcing challenges, it is recommended that the Department establish a steering committee to direct these efforts. The creation of such a committee would enhance DND/CAF's understanding of the relative strategic and operational value that these activities provide. This in turn would better enable DND/CAF to explain the relative strategic and operational value these efforts would bring the Government of Canada and other Canadian departments, especially when new opportunities are identified. The formation of such a committee would also provide

a forum for considering ongoing resource challenges, which in turn would better enable senior governmental leaders to focus DND/CAF's finite resources towards activities that provide the greatest return on investment to the Government of Canada and Canadians.

Even if the Government of Canada chooses not to adopt a realist viewpoint when it takes future DCIB decisions, the formation of a DCIB steering committee would enhance DND/ CAF's ability to more efficiently deliver its DCIB efforts through the increased coordination and prioritization such a committee would provide. This would help free up resources and effort that could be used to enhance or expand DND/CAF's DCIB efforts or to support other critical activities. While numerous options exist for directing and steering DND/CAF's DCIB activities, enhancing the efficiency and effectiveness of these efforts improves Canada's ability to support its partner nations' ongoing requirements. Meanwhile, enhancing the ability of these partners to more meaningfully contribute to global stability and the rules based international order meanwhile directly supports Canadian security and prosperity by fostering a safer and more predictable world.

Notes

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Review: Male Allies at Work

Moser, C. E., & Branscombe, N. R. (2021). Male allies at work: Gender-equality supportive men reduce negative underrepresentation effects among women. *Social Psychological and Personality Science*, 19485506211033748.

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The article by Moser and Branscombe (2021) is an exemplar of the research examining how men, in a predominantly male work environment, can play an important role in supporting their female colleagues. Their work on male allies highlights a mechanism by which men within the CAF can actively engage in changing their work environments to be more inclusive of women. In doing so, they can effectively align their behaviour with the CAF direction regarding leadership, culture change, and diversity.¹ Both Moser and Branscombe are in the Department of Psychology at the University of Kansas. Moser is a PhD candidate, while Dr. Branscombe is a distinguished professor in the areas of intergroup relations, prejudice, and discrimination, has over 200 publications, and has been cited over 35,000 times, according to Google Scholar.

Women perform better when there is equal gender representation in the work environment than when they are far outnumbered.^{2, 3, 4, 5} In a gender-balanced work environment, women do not define themselves according to their gender.² Individuals have numerous identities that revolve around their work, social, and personal lives. Therefore, individuals' identities could centre on their sexuality, gender, occupation, relationship status, parenthood, or community. When a group is underrepresented, their minority identity is highlighted.² The identity (in this case being a woman) then becomes salient and a source of vulnerability, as the person feels alone, distinct, and pressured to outperform their male counterparts and ultimately experiences decreased job satisfaction.²

Certainly, women can act as role models to other women. Indeed, positive female and minority group role models attract more women into male-dominated work environments, provide a sense of gender identity protection, and reduce turnover.² Unfortunately, some fields (like Science, Technology, Engineering and Math (STEM) industries or the military) have a predominantly male workforce, with fewer available role models who are female or who are from other stigmatized identities.²

Given the predominance of men in certain work environments, researchers have shifted their attention towards male allyship. Allies are those who support underrepresented and marginalized groups in the workforce. Male allies, as opposed to female allies, are not typically subjected to judgement when addressing sexist behaviour or promoting gender equality at work. Research has shown that male allies are perceived to be more legitimate when confronting sexism and face less backlash because of their interventions. When male allies speak up, individuals tend to concentrate more on the sexist act than on the characteristics of the confronter.

What do male allies do for women? Numerous qualities help define a male ally. These include: a) not treating the person differently because of their gender (seeing them as a person, treating them as equals), b) sharing similar experiences or interests, c) creating connection, interest, being respectful and non-judgemental, d) generating suggestions to problems, e) acknowledging the gender gaps and prejudices that exist, f) actively learning about gender differences, g) reacting to other men engaging in discriminatory behaviours, h) being a friend, i) providing leadership development opportunities,

j) recognizing the effort women put into their own work and that of their team's, and k) looking towards the future of the organization and the need for leadership diversity.^{7, 8}

Moser and Branscombe's (2021) research focused on STEM fields. STEM fields share similarities with the military work context in that they are typically male-dominated work environments that struggle to attract and retain women (for whom the role is considered non-traditional) and where sexual harassment is a concern. 9, 10, 11 Male-dominated organizations seeking to increase female retention and aiming to be more inclusive towards marginalized groups may focus on helping women feel a sense of belonging and of being valued. To achieve these aims, maximizing existing resources (men), means that organizations may wish to generate opportunities where men can act as allies.

Moser and Branscombe (2021) developed three studies, two of those were experimental (laboratory) studies designed to examine whether male allyship influenced feelings of isolation for women and feelings of support from coworkers. They found that in an environment of female underrepresentation and no male ally, women anticipated feeling less supported and more isolated (there was no effect of male allyship when represented workplaces were gender-balanced). In a third study looking at women with STEM backgrounds, they found that a male ally increased perceptions of support and respect from coworkers, identity safety (i.e., feelings of belonging and safety with that group, and desire to join the group¹²), and increased perceptions that gender equality is the norm and supported, as well as the feeling that women will not be isolated or experience hostility. Female allies were also useful, as participants perceived increased support and respect from coworkers, but the effect was not as robust as when the ally was male. Furthermore, a female ally did not increase perceptions of identity safety or that gender equality was seen as normative. This may indicate that female champions and allies are important but not sufficient to transform the workplace and that members of the dominant group must act in support of change.

Moser and Branscombe (2021) also examined whether race of the male ally was important to self-identified White and Black women in their second study. They found that it did not make a difference to the women whether the ally was a White or Black man. The most important factor was the presence of the ally, not their race. This is encouraging for the CAF given the low numbers of individuals who self-identify as non-white (in 2018, 8.4% of the CAF identified as a visible minority).¹³

Certainly, Moser and Branscombe's (2021) work is not without limitations. All three studies were experiments and asked participants to respond to scenarios, this may or may

"Furthermore, a female ally did not increase perceptions of identity safety or that gender equality was seen as normative. This may indicate that female champions and allies are important but not sufficient to transform the workplace and that members of the dominant group must act in support of change."

not generalize to the real world. Also, it does not present the difficulties allies may experience when attempting to navigate the waters of inclusion in a very 'masculine' culture such as the military. Regardless, it presents some key findings that suggest a way forward.

This article could have important implications for recruiting and retention of CAF women. Despite a commitment from the CAF to increase their female representation to 25% by 2026¹⁴, actual increases have not met established targets.¹⁵ Indeed, women in the CAF are most often found in occupations accepted as more traditional for women (e.g., administration, food services and medical roles) where numbers of women and men are more balanced or where women serve in a pre-dominant role (e.g., 76.8% of nursing officers identify as female).^{16, 17} This finding underscores the need for action within non-traditional roles for women. Increases in allyship within the CAF could increase female CAF members' interest and their anticipation of belonging within the organization; particularly in non-traditional occupations.

Other research appears to support the conclusions by Moser and Branscombe (2021), suggesting that male allies in a male-dominated environment are important to their female colleagues. ^{18, 19} Actively informing and supporting male allies in the CAF through allyship programs ²⁰ could promote culture change in the CAF by fostering an environment that supports

women and confronts sexism and inequality. Programs that put this into practice need to be monitored and assessed. This is important from both women's and men's perspectives. Furthermore, leadership to support inclusivity and change is necessary; when their leaders are open to ideas and input, male followers are more apt to recognize and confront sexism within the workplace.²¹

Increasing diversity and inclusion in work environments improves strategic decisions and problem solving as well as increasing resilience and ability to adapt to change.²² The paper by Moser and Branscombe (2021) highlights the important role that men play in effecting organizational change. Gaining support from men and having men actively involved in supporting women, in a male-dominated environment, is key to changing an organization's culture.¹⁹

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