CAJ

CANADIAN ARMY JOURNAL VOLUME 19.1

Preparing for the New Cold War

The Canadian Armed Forces in the Melting Arctic

Opportunities and challenges

for Canada in the North American Arctic

National Defence Défense nationale

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CANADA'S PROFESSIONAL JOURNAL ON ARMY ISSUES

The *Canadian Army Journal*, a refereed forum of ideas and issues, is the official publication of the Canadian Army. This periodical is dedicated to the expression of mature professional thought on the art and science of land warfare, the dissemination and discussion of doctrinal and training concepts, as well as ideas, concepts, and opinions by all army personnel and those civilians with an interest in such matters. Articles on related subjects such as leadership, ethics, technology, and military history are also invited and presented. The *Canadian Army Journal* is central to the intellectual health of the Canadian Army and the production of valid future concepts, doctrine, and training policies. It serves as a vehicle for the continuing education and professional development of all ranks and personnel in the Canadian Army, as well as members from other environments, government agencies, and academia concerned with the Canadian Army, defence, and security affairs.

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EDITORIAL

Welcome to the *Canadian Army Journal's* new design! As I indicated in my last editorial, CAJ 19.1 represents a refreshed and revitalized journal, both in content and in layout and design. The purpose of the change is to provide an updated and visually captivating experience while maintaining the rigour of a professional, peer reviewed academic journal. You will also note an updated logo designed by very own Brandon Denard of the Army Publishing Office (APO) graphic design team. The logo fits well with the minimalist cover designed to focus on our soldiers. Also included in this edition is work from the expanded Editorial Board. The new board will streamline and enhance the peer review process, thereby increasing the overall rigour of the content. The expanded Editorial Board is listed on the masthead, and biographies are posted on the CAJ web page. Once again, I am indebted to all those who willingly answered the call to participate in and assist with this revitalization effort.

Coupled with the new print layout is a newly designed CAJ web page. The design (which is not yet complete at the time of writing this editorial) will be more dynamic and will present CAJ in more readable formats suitable for different personal electronic devices. In addition, you will find specific article promotions highlighting key submissions in the current edition, articles of particular interest from the archives, and emerging issues. These article promotions are designed to generate greater interest in the CAJ and provide readers with ideas and opinions which we hope will translate into new CAJ submissions. Links to our sister journals within the CAF, Canadian Army unit magazines/journals and international army journals will also be featured on the web page. As you can imagine, it takes time and effort to put this all together, and I am grateful for the assistance and guidance provided by the Director Army Public Affairs and the APO in realizing a new web page for the CAJ.

Lastly, a thematic approach has been adopted for each of the CAJ editions. You will note that a number of articles, across all sections, tend to reflect a common theme. However, because of the wide variety of submissions we receive, at this point we are not planning to dedicate an entire edition to a particular theme. This edition highlights climate change and the Arctic and features several articles on that theme. Starting us off is Dr. Steve Moore's insight into the problems associated with climate-induced sea-level rise and the operational role military religious leaders can play in mitigating the risks associated with climate refugees. His article is followed by Lieutenant-Colonel Lamarche, Dr. Merle Letkoff and Dr. Andrea Charron's look at the Arctic, which offers intersecting views on the promise and peril inherent in our northernmost regions.

I would also draw your attention to two related articles regarding change and transformation: Brigadier-General Stanton provides an overview of implementing change during operations in Iraq, and Lieutenant-Colonel Petersen proposes a transformation of the Army to an asymmetric structure. Each of the articles presents interesting research and thinking regarding change as a process; that is, change which is or can be influenced through leadership and action.

You will also note in this edition that we have expanded the length of our book reviews to allow for a fuller account of each book's content and message. I would like to draw your attention to Corporal Lisa So's review of *Front Line Justice: The Evolution and Reform of Summary Trials in the Canadian Armed Forces*. This review is timely in light of the forthcoming independent review of our military justice system.

In all, I believe you will enjoy this edition of the CAJ. Accompanying the key features noted above are our Note-to-File and Stand-up Table sections, which present opinions and discussion on a wide variety of topics. These equally compelling contributions are a welcomed component of the CAJ as we encourage open and informed debate on historical issues and, perhaps more importantly, the issues confronting the Army today and into the future.

In closing, I would like to remind all of you that the CAJ is your journal, and that only through your continued interest and submissions will we be successful. We have refreshed both the print and web page formats to provide a more visually appealing and dynamic reading experience while maintaining the rigour of a professional military journal. I would like to echo the "call to arms" by CAJ patron Lieutenant-General Eyre: to read, reflect, debate and write about our history and the issues facing the Army today and tomorrow. On that note, I look forward to your future submissions and comments regarding specific articles and/or our new print and web page formats.

Lieutenant-Colonel Michael Rostek, CD, Ph.D., APF
Editor-in-Chief

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RELIGIOUS LEADER ENGAGEMENT:

Global Warming, Sea-Level Rise and the Impact of Mass Migration in 2050 and Beyond

S. K. Moore, CD, Ph.D.

Source: Adobe

INTRODUCTION

There is increasing unease today regarding the warming of the planet, the resulting sea-level rise (SLR) and its potential impact on populations of low-lying islands, coasts and communities globally. A probable consequence of extreme coastal water levels (ECWL) is a surge in mass migration of distressed peoples to higher elevations further inland in search of security and sustenance. Compounding these challenges is the warming of the oceans themselves. Due to trapped greenhouse gas (GHG) emissions in the atmosphere, higher temperatures are consistently creating the conditions for cyclone and hurricane seasons of greater intensity. This article will focus on the effects of continued SLR and what the future holds for populations of low-lying coastlines globally.

Under ECWL conditions, the fallout for regional governments from massive population displacement would be staggering. This is particularly true in South Asia and Southeast Asia, where population density in close proximity to the long low-lying coastline leaves the region extremely vulnerable to such events. Current research suggests that without curbing the present rate of GHG emissions, ECWL, with its destructive effects for coastal regions and its ensuing mass migrations, will likely become a far more common occurrence by 2050. It is highly likely that the international community, including its armed forces, will be called upon to respond to such humanitarian disasters.

For the purposes of this discussion, it is important to note that the Government of Canada is known internationally for its frequent willingness and impressive capacity to respond to emergency situations both domestically and globally. Given the scenario outlined above, if Canada were approached by the international community to assist in mounting humanitarian assistance efforts, it is reasonable to suppose that Parliament would direct the Canadian Armed Forces (CAF) to collaborate with such an international relief effort—a probable CAF Joint Operation in support of their whole-of-government partners within an international coalition.

Even more pertinent is where the CAF may be called upon to deploy globally in the decades ahead. In societies where religion is an identifiable aspect of everyday life, the ability to communicate effectively with local leadership is imperative. Held in high esteem by the people, religious leaders are among the more significant community/regional principals in an operational environment (OE). The Royal Canadian Chaplain Service (RCChS) is uniquely situated to assist the CAF in engaging religious leaders and their faith communities wherever OEs necessitate it. To that end, religious leader engagement (RLE) is a chaplain operational capability employed in expeditionary, domestic and, when necessary, humanitarian operations. This article will demonstrate the value of RLE in OEs where mass migration may occur.

A SNAPSHOT OF THE RELEVANT RESEARCH

The Intergovernmental Panel on Climate Change (IPCC) functions within the framework of the United Nations, drawing on leading scientific minds from around the globe. Intergovernmental Panel on Climate Change studies indicate that high confidence exists across all Representative Concentration Pathway (RCP)[1] scenarios that by mid-century the mean and extreme sea levels in some locations will result in annual weather events of magnitudes rarely seen in past centuries.[2] Those events are expected to be particularly perilous for intertropical low-lying coasts that currently experience storm surges only infrequently, regardless of any uncertainties about future global GHG emissions and melting Antarctic ice sheet (AIS) contributions to SLR. Unsurprisingly, research has shown that "A large portion of the twentieth-century rise, including most global mean sea-level (GMSL) rise over the past quarter of the twentieth century, is tied to anthropogenic warming."[3] Based on indicators across methodologies and RCP emission scenarios, median GMSLs are projected to rise 0.2–0.3 metres by 2050 and 0.4–1.5 metres by 2100). With a high-emission scenario, estimated GSML is projected to be as much as 2.4 metres in 2100.[4] The scientific community concurs that a rise in GMSL of 2 metres by 2100 cannot be ruled out.[5] Such a rise would result in permanent submergence of land by higher mean sea levels / high tides; more frequent or intense coastal flooding; increased coastal erosion; impacted ecosystems; and salinization of soils, groundwater and surface water.[6] Without significantly curbing GHG, compounding such events will be the gradual, yet continual, warming of the seas and oceans with greater frequency and severity of hurricanes and cyclones.

IMPACTS ON CANADIAN COASTLINES

Although this discussion focuses primarily on the inherent dangers associated with SLR for low-lying coastal areas in developing nations, particularly South Asia and Southeast Asia, it must be acknowledged that Canadian coastal areas are also at risk.

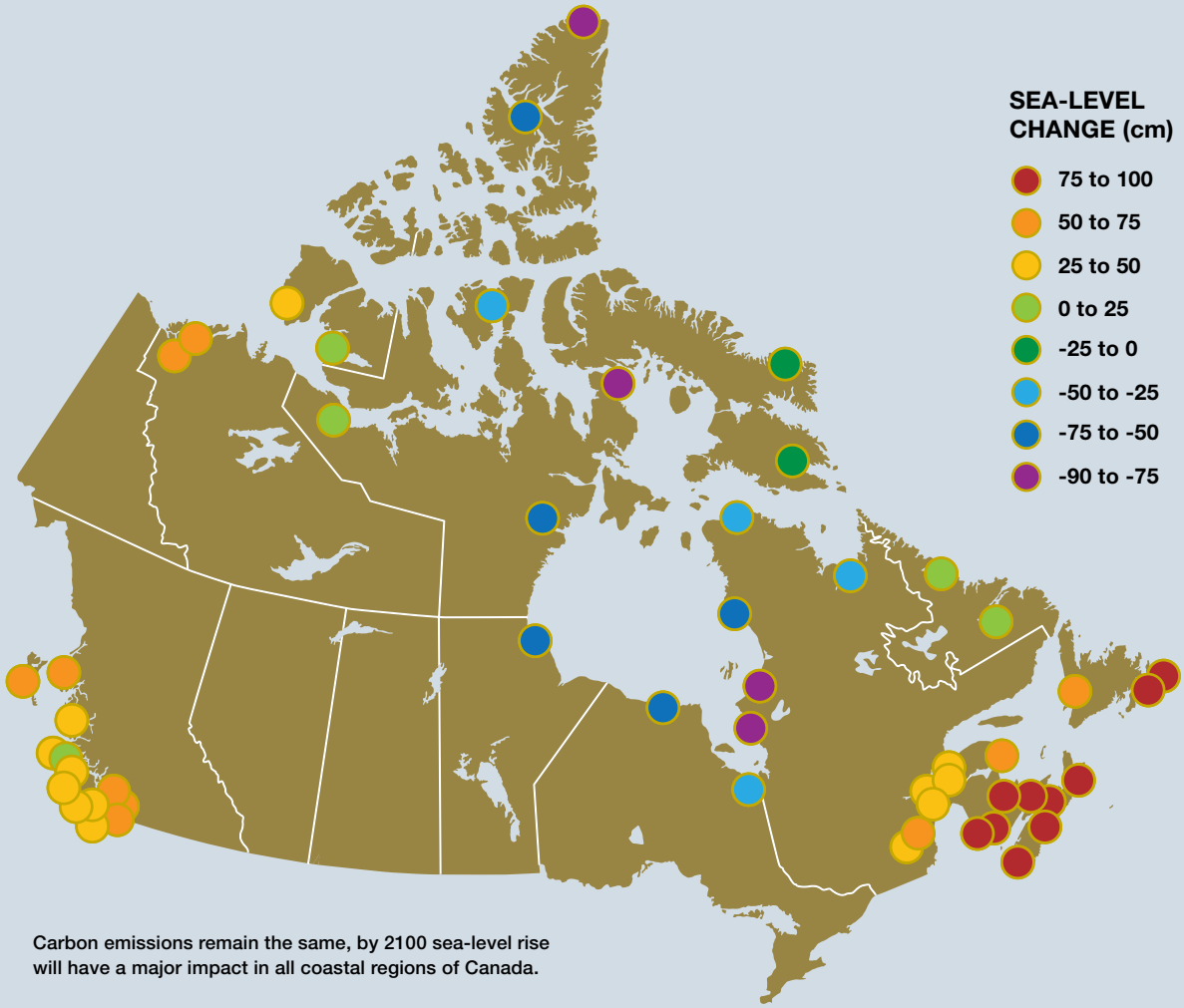


Figure 1: Rising Sea Levels Raise Concerns on Canada's Coasts[7]

As Figure 1 indicates, water levels are predicted to rise along all Canadian coastlines in the coming decades. Accordingly, the threat of SLR rise to communities along the British Columbia coastline is being taken seriously. The provincial government has advised coastal communities to expect at least 1 metre of SLR by 2100, with prime agricultural land and infrastructure at risk. The City of Surrey, for instance, is investing $187 million over the next ten years in a Coastal Flood Adaptation Strategy "to replace the aging sea dams, upgrade dikes, establish a riverfront park with natural flood-attenuating features, and more."[8]

David Israelson writes in *The Globe and Mail* that adjusting to a warmer, wetter and windier world is the new normal as the earth's oceans continue to heat up, contributing to cyclones and floods and putting at risk hundreds of millions of people living in coastal cities around the globe.[9] He quotes Eddie Oldfield of Quality Urban Energy Systems of Tomorrow (QUEST), who states that about 200 communities of all sizes across Canada "are working to become more resilient, adapting to climate change while at the same time reducing the greenhouse gases they emit."[10] One need not look to distant shores for areas of concern, as SLR is among the most grave.

For Canada, SLR is compounded by the continued temperature rise in the Canadian Arctic—a rate double that recorded in other areas of the globe. *Canada's Changing Climate Report*,[11] published by the federal government in 2019, cites as contributing factors the loss of snow and sea ice, resulting in an increase in the absorption of solar radiation, causing a much larger surface warming than in other regions.[12] A cogent example of climate change in the Arctic is the recent calving of Canada's last intact ice shelf, the Milne Ice Shelf on Ellesmere Island in the northern territory of Nunavut. Footage of the event captured by the Copernicus Sentinel satellite on 30 and 31 July 2020 shows that the shelf was reduced by 43 percent when an 80-km^2 section collapsed into the water, broke in two and drifted out to sea. To put these figures in perspective, the island of Manhattan measures roughly 60 km^2.[13]

The Indigenous peoples in Canada's North are particularly vulnerable to climate change. Having to cope with the unprecedented rates of summer sea-ice loss, the reduction in sea ice during winter, ocean acidification, temperature and sea-level rise, melting permafrost, extreme weather events and severe coastal erosion undermines the ability of the Indigenous peoples to thrive in their own environment. Due to a startling rise in temperature in the North, the Inuit are especially experiencing a strain on their existing infrastructure (i.e. the stability of their homes, roads and runways), all of which is having a major impact on Inuit culture and sovereignty, mental wellness and livelihoods.[14] Their ability to cope is a matter of concern. How CAF chaplains may factor into assisting the Indigenous peoples will be explored in the closing section, Religious Leader Engagement Capability Outcomes.

POPULATIONS IMPACTED

Recent IPCC continental- and global-scale coastal exposure studies underscore the human dynamics of growing coastal migration and coastal urbanization as a concern. A substantial rural exodus, tourism development and displacement or (re)settlement of some Indigenous communities are additional contributing factors. This trend projects a population increase in the Low Elevation Coastal Zone (LECZ), coastal areas that are less than 10 metres above sea level), estimated at 11 percent of the world's population in 2010 and projected to expand by 85 to 239 million people by 2100. There is reason for concern about the significant infrastructure and assets located in risk-prone areas.[15] According to IPCC research, the following countries—including both developed and developing nations—are among those with infrastructure concerns: Canada, China, Fiji, France, Israel, Kiribati, New Zealand and the United States.[16] Without an ambitious increase in adaptive efforts, high to very high risks are expected in many coastal areas at the upper end of the RCP 8.5 *likely* range. Zones threatened are "resource-rich coastal cities, urban atoll islands, densely populated deltas, and Arctic communities."[17]

In its 2018 study, *Groundswell: Preparing for Internal Climate Migration*, The International Bank for Reconstruction and Development (World Bank Group) predicts that disasters resulting from rapid-onset events will continue to displace large numbers of people. The study forecasts tens of millions on the move as such occurrences become more frequent and severe due to climate change.[18] It identifies two principal climate change factors driving migration: "(1) less viable areas with lower water availability and crop productivity and … (2) areas affected by rising sea-level and storm surges."[19]

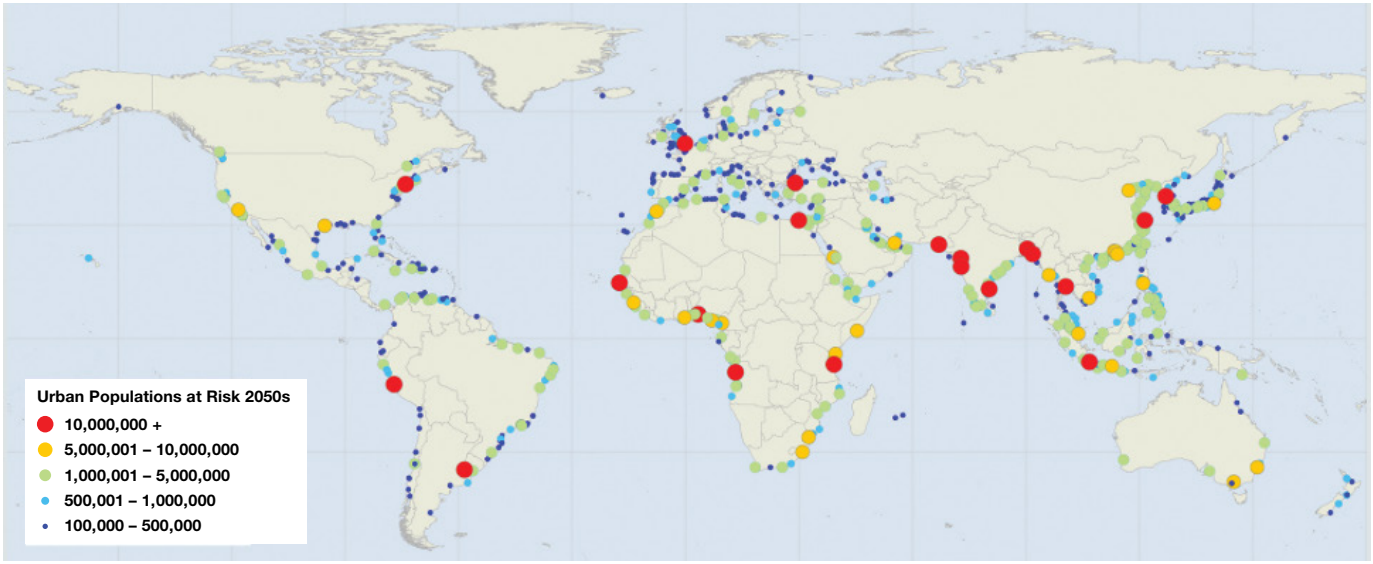
In the *Groundswell* study, researchers examine three densely populated global regions: Sub-Saharan Africa, South Asia and Latin America, which together account for 55 percent of the developing world's population. In more severe scenarios (higher RCPs), roughly 2.8 percent of the population in these three regions—143 million people—could be forced to relocate within their countries by 2050. Sea-level rise was of the greatest concern for South Asia, with some 40 million people potentially impacted. Bangladesh was found to be most at risk due to population density and low-lying urban and coastal areas.

Of immediate concern are Small Island Developing States, which are already experiencing the effects of SLR. Continued sea-level rise is particularly worrying for Pacific islands, as the availability of higher ground for the populace is limited. It is noted that 57 percent of built infrastructure in Pacific island countries is located in risk-prone coastal areas.[20] Increases in the number of climate migrants are thus likely to exert additional pressures on land, natural resources, infrastructure and institutions.[21]

C40 Cities is an international organization consisting of a network of the world's megacities working together to address climate change through effective collaboration, sharing knowledge for the purpose of driving meaningful, measurable and sustainable action. By their calculations, 2050 will see more than 570 low-lying cities facing projected SLR of at least 0.5 metres, which (according to the RCP 8.5 scenario) would put more than 800 million people at risk from impacts of SLR, storm severity and surges.[22] Current C40 research suggests that cities along the east coast of the United States and major cities in Asia are particularly at risk. Figure 2 offers a visual of the cities likely to be at risk globally.

By way of current example, international climate-change specialist Elliott Cappell examines the existential threat facing Jakarta,[24] Indonesia. Drinking and washing water for the 30 million inhabitants of the greater metropolitan area is drawn from the aquifers beneath the city—a sprawling urban region that is literally sinking as the aquifers drain. Their level has dropped by 2.5 metres in the past ten years. In-migration from other parts of Indonesia is projected to bring the population to 35.6 million by 2030,[25] which would make Jakarta the largest metropolitan region in the world. Alarmingly, at the present rate of SLR, it is projected that 95 percent of northern metropolitan Jakarta will be underwater by 2050.[26]

In late August 2019, Indonesian President Joko Widodo announced plans to move Jakarta's seat of government further inland to East Kalimantan Province on Borneo Island—a location with far less exposure to climate-change hazards like those related to



Source: *Staying A float: The Urban Response to Sea-level Rise*, C40 Cities

Figure 2: Cities at Risk from Sea-level Rise[23]

SLR or natural disasters such as earthquakes—in 2024. The cost (US$33 billion) includes the building of offices and homes for 1.5 million civil servants who will move as well—a "managed retreat" by some accounts, in which, instead of confronting a climate-change hazard, the decision is made to pull back to safer ground.[27] According to Cappell, that the idea is fundamentally flawed in that it "points to a dystopian future in which the world's poor drown under a rising sea and the rich, powerful or connected jump from the sinking ship."[28]

SEA-LEVEL RISE, MASS MIGRATION AND CONFLICT

In the event of continued SLR, the spectre of more overt conflict may result from "disruptions from critical infrastructure, cultural ties to the coast, livelihoods, coastal economies, public health, well-being, security, identity and sovereignty of some low-lying island nations."[29] The scale of human displacement and migration may produce heightened security risks as difficult trade-offs are encountered between public and private interests and between short- and long-term concerns. In such instances, security and conservation goals may come into conflict with divergent problem framing, interests, values and ethical positions of stakeholder groups. The effects of SLR can compound sociopolitical stressors and challenge the efficacy of local legal processes, leading to an escalation in conflict.[30]

Understandably, SLR will impact poorer countries and communities disproportionately, as wealthier coastal nations enjoy greater means to either prepare properly or relocate to more secure areas. Compounding these challenges, millions of people may be reluctant or unable to leave such strained environments.

Small Island Developing States are particularly vulnerable because they will continue to lose entire swaths of land and associated livelihoods to SLR, having relatively few options due to a shrinking land mass.[31]

Governments endeavouring to mitigate the impact of SLR on coastal populations, with its associated human, material and livelihood losses, by relocating its citizens elsewhere must also consider the potential for conflict in receiving areas. Such deliberation is especially critical if mass displacement and relocation is reactive and takes place under stressful conditions. Based on his extensive research on mass migration and conflict, Rafael Reuveny enjoins authorities to pay close attention to environmental indicators that may contribute to the conditions for conflict, "associating expected environmental changes with topographical features, dependence on the environment for livelihood, weather patterns, resource availability, population density, order structures, and sociopolitical fault lines."[32]

Reuveny further articulates a process that cycles from migration to conflict, working through four distinct yet interrelated channels. Among these are *competition*, in which migrants burden the economic and resource base of the receiving area, promoting native–migrant competition for resources. *Ethnic tension* may also become a stressor when environmental migrants and residents belong to different ethnic groups. Long-standing disputes or attempts by migrants to reunite with those of the same ethnicity may be greeted with an aggressive response from local residents. *Distrust* may then emerge between the area of the migration's origin and the host area if residents of the host area or country suspect that the area or country of origin is seeking to upset the ethnic balance of the host.

Conflict may also follow existing socioeconomic fault lines, for example, pastoralists and resident farmers competing over land, or migrants and residents vying for jobs (notably when migration is from rural to urban areas).[33]

There is broad agreement that climate change–induced migration will increasingly become a global phenomenon, in contrast to ordinary migration, whose flow is normally low and slow, allowing receiving areas the capacity to absorb the influx of migrants more smoothly and over a longer period of time, thereby lessening the likelihood of conflict. The potential scope and speed of climate-induced human movement are far greater in the immediate timeframe, due to severity of coastal storms and surges resulting from unrelenting SLR. Conflict between groups may ensue when such acute stressors are introduced to populations ill prepared to meet them and governments are inadequately resourced to respond.

In light of the possible stressors that climate change may bring in the not-so-distant future, the role of the CAF may expand further into humanitarian response capabilities in support of distressed populations living in low-lying coastal areas impacted by the ravages of extreme coastal water-level rises. Mass migration of people coping with the strain of emergency relocation will necessitate open communication channels. Where ethno-religious groups make up the majority of those displaced, the process of establishing common ground with the people and favourable conditions with their leaders can be enhanced by engaging religious leaders who are trusted by the people. The chaplain operational capability known as ''Religious Leader Engagement'' offers one such means of achieving successful dialogue—an asset to command and whole-of-government entities alike. The next section will offer a candid appraisal of the operational environment and the complexities it entails, as an appropriate segue to appreciating RLE in application.

THE COMPLEXITIES OF THE OPERATIONAL ENVIRONMENT: TODAY AND TOMORROW

From a baseline perspective, on the level of human and organizational interaction, few milieus present the complexities of today's OE, which can be used as a lens through which to view complexity theory. The number of interacting elements is staggering: multinational militaries, the accompanying intergovernmental organizations and, in some instances, an influx of insurgents opposing them; stressed national, regional and local governments; and diverse populations making up a kaleidoscope of political, tribal, cultural and religious elements. Further compounding such complexity is the ubiquitous presence of international organizations, as well as faith-based and secular non-governmental organizations, both domestic and foreign. These and more complicating factors are known to contemporary OEs.[34]

The projections for climate-induced human migration presented above are indicative of the magnitude of the challenges that may lie ahead for governments and their armed forces. In terms of complexity and of potential as a chaotic environment, the mass movement of peoples migrating away from SLR-impacted regions would not be dissimilar to what is described in the preceding paragraph. Additional dynamics stemming from political, tribal, cultural and religious domains could also be very much at play.

If the goal of containing GHG emissions continues to elude the international community (e.g. the recidivist withdrawal of the United States from the Paris Agreement in June 2017),[35] the potential for humanitarian crises by 2050 and beyond, due to the effects of SLR and its knock-on impact on populations living in low-lying coastal areas, will be of great concern to world leaders. This will elicit from the international community a response of ever-increasing sophistication and ongoing adaptation. Integrated approaches inclusive of multiple different resources, capabilities and expertise will be essential to addressing need on such a large scale. From a complexity theory perspective, the chaplain operational capability of RLE presents as an "adjacent possible"—an impulse initially visible on an *ad hoc* basis that is emerging now as a defined capability in the midst of complexity's interactive elements.

Future OEs stand to further benefit from the increased preparedness of padres to engage religious leaders and their faith communities in areas of operations (AO), given the significant place that religion holds in the lives of the majority of the world's citizens, a factor meriting reflection here.

THE ROLE OF RELIGION IN NON-WESTERN SOCIETIES

The Age Gap in Religions Around the World, a 2018 report from the Pew Research Center in Washington, DC, cites that even though parts of the world are becoming more secular, it cannot be assumed that the world's population overall is becoming less religious. The literature would suggest that, from a global perspective, regions that are more religious are experiencing the fastest population growth due to high fertility rates and relatively young populations. Researchers tracking these trends contend that countries experiencing high levels of religious affiliation will grow at a faster pace than other parts of the planet. The same holds true for levels of religious commitment. In fact, the greatest gains in population growth appear to be occurring in countries where, for the majority, religion is central to their day-to-day lives. Hence, the correlation between global population growth and the increase of religion's influence among its peoples is rising and will continue to do so.[36]

Source: unknown

Winter 1993: Visoko, Bosnia-Herzegovina (Op CAVALIER 92–93, 2 RCR BG, on the outskirts of Sarajevo). Meeting with the Imam Association (IA) at their invitation. Imam Asim Asdahic, centre left, was the leader/President of the IA, responsible for 60 mosques in Southwest Sarajevo region. The author is at centre right, with Father Mari Eugino, Roman Catholic Padre, to his right and Warrant Officer Luc Belisle, Medical Assistant to his left. On the left, at the far end of the table, is our interpreter.

Although South Asia and Southeast Asia are home to the world's largest Hindu and Buddhist populations, Figure 3 from the Pew Research Center study cited earlier, offers a striking overview of the Islamic world and, for the purposes of this article, of religion's relevance in the everyday lives of Muslims. In many of the countries of South Asia and Southeast Asia, more than 90% of the Muslim population attest to the significance of their personal faith journey. These regions are highly religious and, according to climate change research, highly vulnerable.

For many nations in the Global North, the idea of according religion an elevated place within the public space is seen as anachronistic. In other parts of the world, however, religion frequently enjoys a strategic social space[38] within civil society and, by extension, among its leaders. Thus, Western societal and cultural norms do not necessarily prepare deploying military personnel for societies where religion holds such a prominent place. An inherently secularist sensibility may make it difficult to appreciate the significance of local religious expression.[39]

In this regard, chaplains exercising RLE are a value-added to Command in OEs where massive numbers of internally displaced persons are strongly religious. The RLE is especially beneficial when the chaplain is of the same faith tradition (e.g. a CAF imam establishing dialogue with religious leaders [RL] in a situation where migrant populations are primarily Muslim).[40]

A POSSIBLE SCENARIO

To put the above in context, consider the following scenario. Southeast Asia is calculated to have 130,000 kilometres (81,250 miles) of coastline,[41] much of which is low-lying and home to the majority of the region's 670 million inhabitants.[42] As mentioned earlier, it is among the world's regions that are the most vulnerable to severe SLR by 2050 if the rate of global warming continues unabated as presented in IPCC RCP 8.5.

With such massive out-migration, the potential for unrest is substantial. Where populations are distressed due to the need for security and sustenance, it is not inconceivable for conflict to emerge due to competition, ethnic tension, distrust and socioeconomic fault lines, as illustrated by Reuveny.[43] Nations will soon be overwhelmed with the magnitude of such population displacement and will issue urgent requests for the international community to assist. Given a situation of such severity, it is not unreasonable to envision governments directing their armed forces to participate with an International Coalition / Joint Operational / Whole-of-Government / Whole-of-Community emergency response. Coping with such staggering displacements will require the greatest possible asset availability. That is where RLE comes in.

Over the last decade, the RCChS has been preparing chaplains for an expanding strategic role in OEs. The following is a synopsis of how this training can aid Command in better comprehending the subtleties of the religious terrain and, when appropriate and under the Commander's direction, engage religious leaders and their faith communities as a means of fulfilling mission mandates.

RELIGIOUS LEADER ENGAGEMENT AS PLANNING: RELIGIOUS AREA ASSESSMENT

As religious leaders in uniform, chaplains increasingly possess the skills to conduct what is termed Religious Area Assessment (RAA)—a comprehensive planning methodology that collects and analyzes data, integrating it into the operations process. Key areas of research are as follows:

- Historical overview, religious demographics of all faith groups, and their histories, including how they currently interact (e.g. lingering animosities and/or instances of cooperation);
- Places of worship and prominent holy sites;
- Doctrines and essential religious observances;
- Religious polity;
- Religious views on social issues;
- Prominent religious leaders of all faith groups in the AO;
- Opportunities for engagement;
- External religious agencies; and
- Do's and don'ts in the AO.

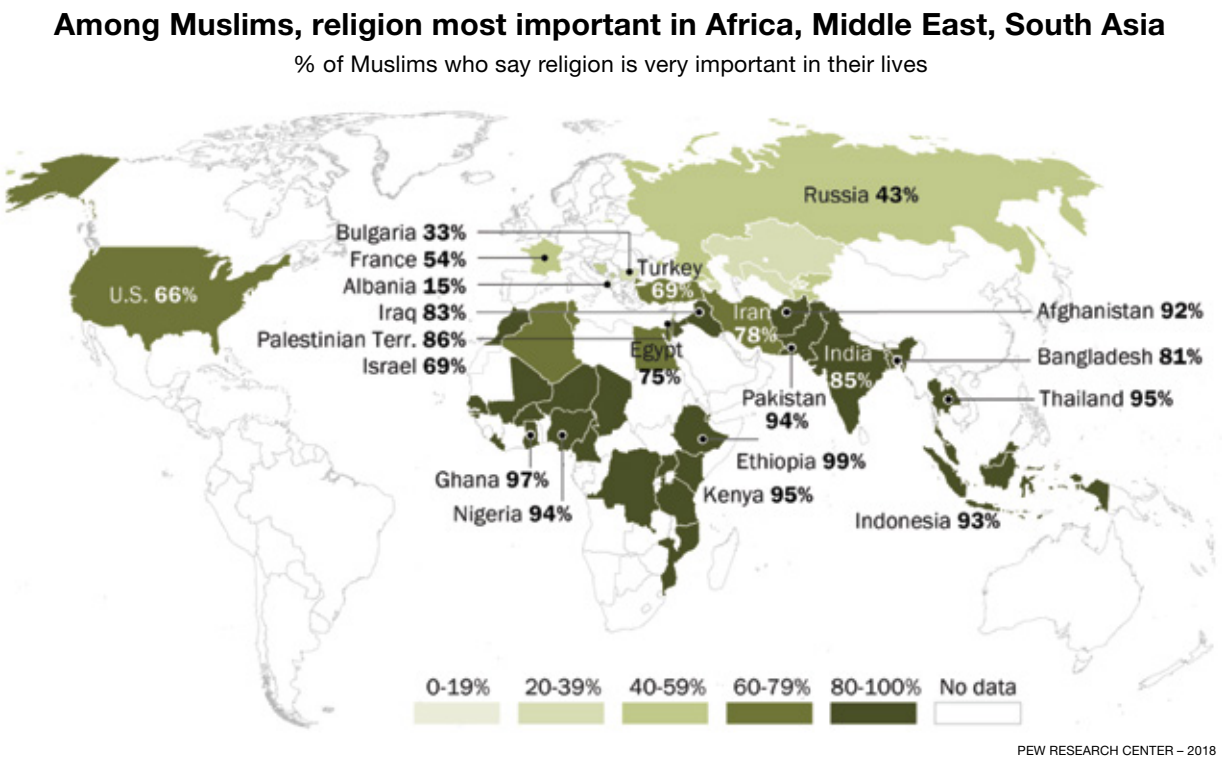


Figure 3: The Importance of Muslim Faith[37]

In the event that a mission is mounted in response to a mass migration emergency, chaplains will be in a position to provide the chain of command (CoC) with an in-depth overview of the religious profile of the ethno-religious group(s) impacted, preferably during the pre-deployment phase. This may include the religious orientations of ethnicities in the receiving area if they are different from those of the in-migrants. As specialist officers, chaplains are prepared to provide briefings in Commander's orders groups and/or give presentations at the company and platoon levels in theatre as a means of equipping the members with the most up-to-date information about the religious terrain of the AO. By grasping something of the meaning and reality of the local faith perspective, chaplains are more apt to appreciate how a given person or community's grassroots belief system may colour their response to proposed mission initiatives, plans of action, troop movements, etc. Knowledge of what people do and why they do it with respect to the faith journey is especially beneficial when other cultures are encountered.

In accordance with normal procedure, this analysis is treated as a living document to be updated and expanded as the deployed chaplain gains increased knowledge and situational awareness on the ground. Their capacity to liaise with humanitarian organizations in the AO is critical to gleaning information about the religious makeup of the migrant community and its leaders.

MISSION ANALYSIS AND RELIGIOUS IMPACT ASSESSMENT

Building on the RAA, chaplains further conduct mission analysis, a process that follows deployment and generally coincides with receipt of the operations plan. To facilitate this analysis, they employ the ASCOPE process—Areas, Structures, Capabilities, Organizations, inclusive of People and Events from the religious perspective. This tool aids in analyzing the human terrain, better enabling an examination of the OE through the eyes of the local population and helping the chaplain to categorize and collate pertinent information.

Offering relevant input to mission initiatives is of strategic import. For this reason, chaplains are now familiarized with the Political, Military, Economic, Infrastructure and Information (PMESII) system[44] on exercises (UNITED RESOLVE, MAPLE RESOLVE) as part of their pre-deployment training. Relevant information drawn from research, which is primarily related to the culture and religion of local populations in the AO, are placed in the appropriate PMESII categories.[45] This information includes predominant religious beliefs, significant religious festivals and practices, principal regional and local religious figures and their ideological leanings, minority religious groups, and extreme religious factions should they be present. Given the level of sophistication of current approaches to research in their domain, chaplains are in a position to offer strategic guidance from a seat at the operational planning process table.

Source: unknown

Spring 1993, Visoko. In the home of Imam Asim Asdahic and his wife (at left) with the Imam who led the Red Crescent (second from right), and our interpreter (far right). The author is in the middle.

If, due to the effects of ECWL, a mass out-migration to higher elevations inland were to occur, stressors for impacted populations would be significant, just as they would be for groups residing in regions receiving this mass in-migration. An added dynamic in this type of humanitarian emergency would stem from the religion or religions of those affected. An even greater challenge for military and international aid organizations is that, if the ethno-religious groups involved were of different faith persuasions, their differences could, depending on the groups' histories and present associations, be a source of friction in an already stressfully fraught environment.

While a Commander may receive religious information from additional sources, through the processes of RAA, MA and Religious Impact Assessment (RIA), the chaplain offers strategic guidance relating to the religious context within the AO and the impact it may have. The RIA then builds on the work of the RAA and the MA, providing commanders with concise recommendations and courses of action pertinent to operational planning.

RELIGIOUS LEADER ENGAGEMENT: BOUNDARY SPANNERS, MIDDLE-RANGE ACTORS AND SOCIAL CAPITAL

Bridging to Religious Figures as Community Leaders

Chaplains and local/regional religious leaders alike know the meaning of social capital and the moral authority that it brings. Missions have been known to benefit from the respect and cooperation generated by the common ground that chaplains naturally share with local religious leaders. A second-order effect influenced by the context, this capacity to build bridges with the chaplains' local counterparts aids in establishing relationships, which, in turn, enhances humanitarian interaction in the strategic social space of an AO. In this capacity, padres, who have been called "people of the book," play a unique role as boundary spanners.

Middle-Range Actors

Religious leaders are undoubtedly among the more dominant centres of gravity within Indigenous populations. They are middle-range actors, and the middle range is where, in non-Western societies, the lines of separation between faith and the public space are markedly less defined. They are often revered individuals at community and regional levels. Such esteem owes its origins to the almost seamless connection between religious communities and local culture and, at times, politics.

Religious leaders enjoy the confidence of the grass roots while moving freely at the higher levels of leadership within their own communities. Their ease of movement affords them relationships that are professional, institutional and sometimes formal, while other ties are more a matter of friendship and acquaintance. Thus, they have a high degree of social capital within communities. More notable still, "middle-range actors tend to have pre-existing relationships with counterparts that cut across the lines of conflict within the setting ... a network of relationships that cut across the identity divisions within the society." [46]

Source: unknown

Padre Gabriel Legault (Roman Catholic priest, at rear table, to the right), Glamac, Croatia 2001, with Orthodox priests, a Croat Roman Catholic priest and two Imams, arriving at an agreement on fair distribution among the three ethnic groups of humanitarian assistance coming in through Canadian supply lines. The author is on the right at the rear table.

In terms of their moral authority, these religious leaders often enjoy the respect and trust of their communities beyond the strictly religious realm. Where natural disasters strike, these same clerics live through the hardship alongside their people. An out-migration due to flooding or storm surges resulting from the effects of SLR would be a case in point. The respect religious leaders enjoy among the people is not simply because of their position; it is earned by virtue of a shared journey. Often they may not be highly educated, but they have more education than others in their locales. As such, they are often sought out as counsellors for advice or to aid in resolving family disputes. Religious leaders

Source: Combat Camera

Chaplain Captain Glenn Davis sands and paints a wall with the help of a local child at the Centre Bayti in Casablanca, Morocco, during Operation PROJECTION West Africa on 6 April 2019.

frequently sit on local/regional councils where the issues significant to community life are discussed and decisions are made. This mixture of community engagement, coupled with the role of spiritual leader, affords them much credibility in the eyes of the people, as well as moral authority that they can bring to bear with leadership. Religious leaders are major figures within the strategic social space.

For this reason, *networking* among religious communities in an AO is an integral aspect of RAA as chaplains engage local faith group leaders to better ascertain religious belief systems experienced locally. Syncretism may be an element in other parts of the world where tribal practices blend into religious expression. Engaging local religious leaders and their communities is essential in making such assessments. Religious leader engagement activities naturally flow out of the RAA conducted by chaplains. In this sense, one is built upon the other—both are necessary to the full scope of engagement among local religious communities.[47]

When local religious leaders are engaged, the ensuing relationship building may engender trust. Such encounters become a safe space for these community leaders to share concerns and aspirations. However, it should be noted that engagement at this level is contextual in the sense that it is not always possible to further relations; security concerns and lack of opportunity may be limiting factors. That being said, there have been instances where a trusted environment (ministry of conciliation) has led to religious leaders sharing openly regarding community hardship, misunderstandings among local leadership or tensions with an adjacent group of a different ethnic/faith tradition. Deemed trusted friends, chaplains may partner with civil-military cooperation or whole-of-government entities to facilitate bringing programming to bear on identified needs, whether that involves physical resources or assistance in resolving outstanding issues—peacebuilding activities in an AO.

Civic initiatives by local individuals and/or organizations, religious or otherwise, in an AO may address underlying concerns that are essentially political and social—programming that often serves to reinforce the objectives of more moderate RLs and their faith communities. Whole-of-government personnel are cognizant and supportive of such civic organizations, often providing funding for projects as a means of enabling local/regional initiatives. Religious communities, although well intentioned, may unnecessarily remain insular to humanitarian organizations from their own region, and thereby miss out on collaborative opportunities. Coalitions made up of humanitarian organizations and religious communities often experience greater results than each would acting alone—there is a synergistic effect.

Source: Combat Camera

Members of the Royal Canadian Air Force's 436 Transport Squadron and Canadian Rangers evacuate residents of the Pikangikum First Nation community on board a CC-130J Hercules during Operation LENTUS, 9 July 2019.

With whole-of-government support, chaplains are well positioned to facilitate linking these organizations with more progressive religious leaders and their communities, bringing them out of isolation and into productive relationships.

POTENTIAL RELIGIOUS LEADER ENGAGEMENT CAPABILITY OUTCOMES

At this juncture, a discussion of how RLE may be applied to the OE will be pertinent. The author recognizes that, as an operational capability, RLE stands apart from other lines of operation. Intriguing as it may seem to the CoC, how RLE functions, and to what benefit, are legitimate questions.

DOMESTIC OPERATIONS

Canada has had its share of emergency situations due to natural disasters. As the climate continues to warm, the trend will only intensify. Provincial governments often call upon the CAF for assistance when confronted with nature's force. Operation LENTUS has mounted a number of relief endeavours to aid disaster-stricken regions, including the wildfires in British Columbia, Alberta and Saskatchewan; floods in the Red River region of Manitoba, Saguenay, Quebec, and High River, Alberta; the CAF assistance to southern and eastern Newfoundland and Labrador during Hurricane Igor; and, of course, the massive military response to the 1998 ice storm in southern Quebec and parts of eastern Ontario. Rising sea levels and their subsequent impact on communities along Canada's coastlines will undoubtedly result in future emergencies. To help Canadian communities cope with the ensuing flooding, storm surges and, at times, population displacement, all assets will be needed, including those offered by the CAF.

Faith groups in Canada often enjoy a high profile in urban centres, especially among ethnic groups that maintain a strong sense of community. Religious leaders of all faiths practise civic engagement in the affairs of towns and cities across the nation. In emergency situations, these same faith groups work alongside other civic organizations to provide food, warm clothing, shelter, transportation and more. Churches, synagogues, temples and mosques all possess infrastructure that can be made available to a local population during a crisis.

In domestic operations, chaplains deploy with their troops and are strategically positioned to facilitate dialogue with RLs when the need arises. Through their relationships with local/regional RLs, chaplains become a reliable and effective conduit through which to communicate with faith community leadership.[48]

As indicated earlier, Canada's Indigenous peoples are already experiencing the impacts of climate change. A chaplain's capacity to effectively engage Indigenous elders should not be underestimated. Rising temperatures in the North continue to undermine Indigenous peoples' way of life, which in future may result in the need for entire communities to relocate. As an RL, a chaplain can engage with elders to convey much-needed information and allay concerns that may be unnecessarily creating difficulties.

Confrontations with Indigenous peoples must be avoided at all costs in Canada. That said, Indigenous people's deeply felt ties to their traditional lands can at times border on the sacred. Such intensity can escalate to precarious standoffs when perceived rights are seemingly trampled underfoot by government or business interests. If the military were called upon to intervene in situations where hostilities threatened to escalate, having previously established relationships with the spiritual leaders of Indigenous communities would

Source: unknown

Padre Imam Suleyman Demiray facilitating a Shura with the Ulema Council (made up of Mullahs, Islamic scholars who advise the Governor of Kandahar Province on matters pertaining to the interpretation of the Koran) at the Kandahar Provincial Reconstruction Team (PRT) in 2006. At the far left is the PRT Commander. Political Advisor Gavin Buchan is squatting in the foreground (on the left). Lieutenant-Colonel John Fletcher, Command Chaplain, is talking to the Senior Mullah. This was an example of chaplain / whole-of-government collaboration.

undoubtedly hold strategic merit. The calming influence on local/regional Elders who are standing on the opposite side of a barricade would be key to resolving conflict. Encouragement from a chaplain they know could reassure an Indigenous spiritual leader and motivate them to continue with any tension-reducing conversations they may be having. Uppermost in the chaplain's mind in any engagement of this nature is the well-being of the other. Resolving these types of standoffs peacefully is in everyone's best interest.[49]

HUMANITARIAN OPERATIONS: MASS MIGRATION

Religious and community leaders in the Global South often perceive Westerners as secularist and, consequently, a threat to their faith and way of life. Subsequently, the religious leaders tend to avoid engaging Westerners, whether military or civilian.[50] Because chaplains are bona fide religious/faith group leaders and can more easily establish trust, they are often able to build bridges to such community leaders, paving the way for meaningful dialogue with other mission members—hence the term "boundary spanners."

Open and ongoing communication with a migrant populace in the midst of a significant out-migration is a major component in achieving mission mandates. A multinational humanitarian endeavour will be preoccupied with aiding the movement of large numbers of people away from stricken coastlines to migrant camps further inland even as those camps are rapidly being built. Given the magnitude of the losses of home and livelihood incurred, the range of emotions among the people affected will be significant: anxiety, confusion, fear and anger, compounded by hunger, thirst, sickness and, undoubtedly, separated families. With the potential for tens of thousands on the move, identifying religious leaders present among the migrants would be invaluable in communicating with the people in ways that would have a calming effect. Depending on the dynamics at play, RLs may or may not self-identify. Chaplains of the same faith persuasion as the migrant population would be in a privileged position to make contact with embedded RLs where possible. Anyone with operational experience knows that interpreters normally come from the local environs and, as such, are often able to make first contact with key religious leaders, creating opportunities for personnel—in this case, chaplains.

Source: unknown

Padre Imam Suleyman Demiray at the Governor's Palace with Shia mullahs (2007). A joint meeting with Shia and Sunni Mullahs bringing their mutual concerns to the Governor. There had been no Shia representation on the Ulema Council for several years due to religious leaders being assassinated by the Taliban. Demiray was instrumental in bringing them out of isolation and back onto the Council. This was another example of chaplain / whole-of-government collaboration.

Chaplains with this kind of access provide the CoC with an essential conduit for two-way communication—a hand on the pulse of how a migrant population is faring. As religious leaders in uniform (non-combatants), through their genuine concern for the other, chaplains gain trust and establish relationships with RLs who willingly share their concerns and the needs of their people, knowing that these matters will be conveyed to military and civilian leadership taken seriously, and addressed to the best of the Commander's ability to do so. Chaplains are able to bring current assessments to the Commander's briefings and deliver messages from the CoC to migrant populations as required.

On operations, also attending the Commander's orders groups are representatives from whole-of-government entities (interagency environment). Again, a chaplain's briefing and the resulting sidebar conversations with IO and non-governmental organization principals, whether faith-based and/or secular, are essential to achieving mission objectives. As non-combatants, padres are also viewed as humanitarians by civilian agencies, which aids in diminishing pre-existing concerns with respect to neutrality that, unfortunately, have hampered collaboration with the military in the past.

There is a maxim to live by when conducting operations in another culture: "Perception is very real in its consequences." The capacity to communicate essential information to local populations is critical to mission objectives. A notification of a planned road move may prevent troops from unknowingly straying into a locale of sacred significance (e.g. holy sites or shrines), an action which could be perceived as Western arrogance. Such an oversight could be met with a vehement response, thereby damaging hard-won trust and established relationships.

Cognizance of how festivals and holy days are observed by migrant populations is another factor worthy of consideration. Their situation of uprootedness may create difficulty in celebrating a given festival or ritual in the accustomed respectful way. A chaplain may be able to offer assistance in creating the necessary backdrop for a meaningful celebration that otherwise would have fallen short of the mark. A small, yet respectful, gesture of good will on the forces' part will engender lasting gratitude from the RLs and their community. Actions such as these reap rewards when future cooperation is needed in other areas.

For four years (2011–2014), it was this author's privilege to serve as a member of the Directing Staff of the International Civil–Military Relations Course at the United Nations Training School Ireland, just outside Dublin. Religious leader engagement is integrated into the program as an aspect of cultural awareness training. On one occasion over lunch, a senior officer of the Armed Forces of Malta, after attending a lecture on RLE, related the following personal anecdote. For Malta, as a Mediterranean island nation, receiving refugees from North Africa was not uncommon. One particular assignment that fell to the officer was to oversee a large refugee camp on the island where several thousand people, mostly Muslim, were staying. The RLs within the refugee camp had declined to

self-identify, yet were leading Friday prayer services in one of the tents. During a routine inspection of the camp, the officer noticed that the tent being used for the makeshift mosque was far too small to accommodate the number of worshippers attending. A much larger tent was made available, along with ablution stands. The several imams soon made themselves known to the officer, expressing their gratitude. The working relationship that was built with these respected community leaders enabled him to better communicate essential information, manage refugee disputes and distribute aid equitably among the refugees during his remaining time as Camp Commander. Establishing amiable relationships with RLs within migrant populations is vital to maintaining open communication and ongoing cooperation.

CONCLUSION

Scientific and academic communities are in agreement that if greenhouse gas emissions are not sufficiently curbed in the short term, the warming of the oceans and sea-level rise will combine to create climate conditions of increasing severity for populations of low-lying coastal regions around the globe. The cumulative effects of cyclones, continued land encroachment, storm surges and flooding in approaching decades will adversely impact these vulnerable communities that are home to hundreds of millions of the planet's inhabitants. Accompanying such environmental events will be ever more frequent mass migration, causing a growing crisis for the international community as displaced and distressed populations relocate to higher elevations inland in search of security and sustenance. If this were to occur, it is reasonable to assume that governments would mandate their armed forces to contribute to multinational humanitarian efforts. Few organizations have such logistics and movement capability on a global scale.

This article has made a case for the strategic role of chaplains, who are religious leaders in their own right, in advising Command of the subtleties of the religious terrain of an AO and, concomitantly, facilitating greater access to and communication with impacted populations for their whole-of-government partners, in a process known as religious leader engagement. This is of particular note where ethno-religious groups make up the majority of the population, as is true in the Global South. Assisting distressed populations, as would be the case with mass migration due to the environmental factors presented above, would present deploying contingents with challenges outside the norm for Operations. The emerging chaplain capability of RLE offers Command a unique competency at operational and strategic levels. Another essential investment in CAF preparedness is scenario development. When analysts and operational planners are deliberating the impacts of mass migration for potential deployments, their efforts would be greatly enhanced by the input and perspective of chaplains trained in RLE, and that input would be particularly beneficial in cases where the impacted populations are highly religious.

ABOUT THE AUTHOR

S. K. (Steve) Moore, Ph.D., a padre in the Canadian Armed Forces for 22 years, served on tours to Bosnia (1992–93) and Haiti (1997–98) and did doctoral research in Afghanistan (2006). His post-doctoral work led to the chaplain operational capability of RLE being integrated into Army training. He has advanced RLE within NATO and the Commonwealth, increasingly assimilating a whole-of-government application. His publications include *Military Chaplains as Agents of Peace: Religious Leader Engagement in Conflict and Post-conflict Environments and Religious Leader Engagement as an Aspect of Irregular Warfare: The Dénouement of a Chaplain Operational Capability.*

ENDNOTES

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BEYOND THE ARCTIC:

The Strategic and National Security Implications of Climate Change for Canada

Major Jean-François Lamarche

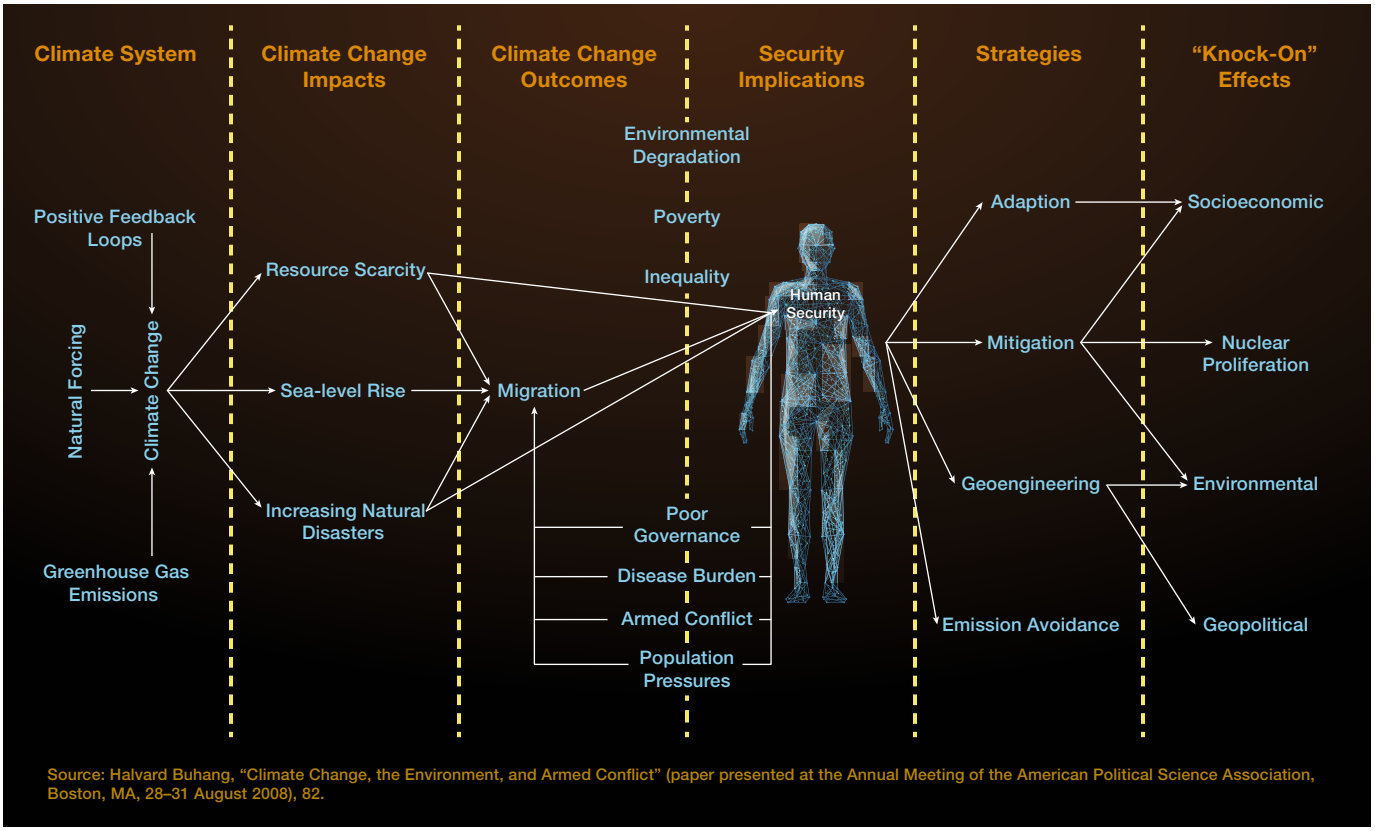
Source: Adobe

INTRODUCTION

The nexus between climate change, security and social organizations has been perceptible for a long time. Many environmental historians have presented the example of Easter Island, whose society collapsed in the eighteenth century because of resource depletion and ecological degradation.[1] The population of the island vanished due to extreme deforestation and soil erosion that led to a loss of raw materials, decreased crop yields and ultimately famine.[2] Before long, a conflict over resources erupted among the islanders that led to cannibalism, as revealed by the discovery of human bones bearing human teeth marks.[3] This ecological and social collapse, which happened two centuries ago to a society secluded from other civilizations, bears significance for today's complex world characterized by geopolitical competition and deep climatic disturbances.

Climate change is now universally recognized as a global menace that will influence every region of the world at a much more rapid rate than first anticipated. The examples are too plentiful to enumerate. The rise in sea level alone could have disastrous consequences. Since 1988, the Intergovernmental Panel on Climate Change (IPCC) has provided governments at all levels with hundreds of thousands of scientific reports as a basis for developing climate policies.[4] The IPCC has warned that, without climate action, sea levels could rise six feet by the end of 2100 and as much as ten feet within two centuries, jeopardizing coastal communities around the globe.[5]

Rising sea levels constitute a serious crisis, since a quarter of the world's population lives near coasts and the majority of megacities are located in coastal areas, some of them in countries that have tense relations with their neighbours. In the future, we could see Pakistan, India and China—



Source: Halvard Buhang, "Climate Change, the Environment, and Armed Conflict" (paper presented at the Annual Meeting of the American Political Science Association, Boston, MA, 28–31 August 2008), 82.

Figure 1: Human Security Flow

all nuclear powers—skirmishing at their borders over access to shared rivers and land with large areas submerged under rising seas.[6] For other nations, their very survival is in question. For example, reports that rising sea levels are exceeding the worst projections suggest that the Maldives will soon be uninhabitable and that its 400,000 citizens will be displaced decades earlier than first predicted.[7]

Although the direct consequences of a changing climate are expected to hit harder in less resilient regions of the world, they are also projected to impact North America. Along the Atlantic coast of the United States, sea levels are rising about four times faster than the global average and may be one metre higher by 2050.[8] According to this conservative forecast from the IPCC, New York, Norfolk and Boston would be inundated and Miami could become uninhabitable, leading to migration and water scarcity that could fuel conflicts between the United States and Canada over access to the Great Lakes.[9] This scenario suggests that the eruption of tensions, even between friendly, rich neighbours, could hasten violence and instability. No continent is immune to changes in environmental security.

This article will investigate the impacts of global climate change on the environmental and national security of Canada, as well as the repercussions for the Canadian Armed Forces (CAF) beyond the Arctic region.

The aim here is not to diminish the importance of the Canadian North. On the contrary, the abundance of literature on the subject is an indicator of its significance. The increasing significance of strategic resources, more severe competition between nations, and potential encroachment on Canadian sovereignty are all vital aspects of the environmental changes that are occurring right now.

Nevertheless, most experts mention the security implications of climate change beyond the Arctic only in passing. Yet the CAF must focus on climate change–related scenarios beyond the Arctic. All regions of the country—and all Canadians—may experience the security implications of temperature, precipitation, weather and sea-level changes.[10] Major population centres, coastal cities, transportation and trade hubs, and other infrastructure considered critical to Canada's functioning and economic prosperity will be affected, from coast to coast.[11] Therefore, it is crucial that political decision makers, policy makers and senior military leaders broaden the scope of their discussions beyond the Arctic and adopt a truly holistic vision of climate change as a complex reality affecting all regions of the country and many aspects of the lives of all Canadians.

This article is divided into three sections. The first will summarize the current state of affairs regarding climate change as a global phenomenon influencing environmental

security. It will focus on three main outcomes: resource scarcity, intensification and increased frequency of natural hazards, and human migration. The second section will trace the linkages between the current environment and the ramifications for Canada as a nation, as well as its security policy in a climate-changing world. The third and final section will conclude the article, offer observations and discuss implications for the CAF.

THE GLOBAL STATE OF AFFAIRS

Regarding resource scarcity, the reports on global warming are unequivocal. Global temperatures are rising at a previously unrecorded pace. As the world warms, changes in climate have impacted not only the oceans, but also human systems, fauna and flora on all continents.[12] Specifically, an increase in average temperatures results in greater desertification, loss of arable land, deforestation, modification in rainfall patterns, ocean acidification, rising sea levels and fresh water insufficiency.[13] Currently, the most affected regions of the world are in the Southern Hemisphere and Asia. However, resource scarcity linked to global warming is afflicting the entire world. Competition for resources becomes sharper as less water is available and the amount of food produced on accessible land is reduced, especially in relation to the projected increase in global population.

Indeed, the United Nations Department of Economic and Social Affairs (UNDESA) projects that the global population will climb to 8.5 billion by 2030, 9.7 billion by 2050, and 11.2 billion by 2100.[14] By 2030, that population is likely to increase the demand for food by 35 percent, energy by 50 percent, and water consumption by 40 percent above sustainable existing water supplies.[15] It takes two hectares of land to produce enough food to feed one person; therefore, if current projections of world population are accurate, fewer available farms will have to produce three times as much as they do today.[16] Beyond ensuring the food supply, the growing population will also have to compete for energy in the face of higher demand, and that competition could provoke resource wars. Such a scenario becomes even more alarming when combined with the likely negative consequences of the intensification and increasing frequency of natural hazards in the near future.

There is already evidence that the intensity and frequency of natural disasters are increasing. The two main categories of natural disasters are geological and hydro-meteorological.[17] According to the Center for Research on the Epidemiology of Disasters (CRED), climate change has affected the latter category of disasters over the last decade, driving an increase in tropical cyclones, flooding, droughts and forest fires.[18] The records for 2007 alone show 414 disasters which killed a total of 17,000 people.[19] Unfortunately, that year was not an isolated one.

Still according to the CRED, a similar annual average has been recorded over the past decade, far exceeding the level at which these types of disasters occurred in the 20th century.[20]

The increasing frequency and intensity of these natural phenomena signal harsher repercussions for a larger population. In 2018, 3.9 billion people, or about half the global population, experienced natural disasters. Given that multiple disasters may occur in the same region, affecting the same people repeatedly, the number of persons affected could be as high as 10.7 billion.[21] More disasters mean reduced availability of resources. In combination, these two aspects of climate change will bring heavy consequences for the global population. As people-centred aspects of environmental security affect greater numbers of individuals, more people will be forced to leave their homes and migrate elsewhere, becoming environmental migrants or climate refugees.

The third major outcome of climate-induced insecurity is climate-related migration, or "climate refugees." Environmental migration is not a new phenomenon, but more research has been conducted on it in the last thirty years. As early as 1990, the IPCC reported that the greatest single impact of climate change could be human migration, with millions of people displaced by shoreline erosion, coastal flooding and agricultural disruption.[22] Some studies even suggest that environmental refugees—those displaced by a marked environmental disruption that jeopardizes their existence or seriously affects their quality of life—will soon become the largest category of involuntary migrants.[23] It is still difficult to predict future numbers of environmental migrants. Currently, forecasts vary from 25 million to 1 billion environmental migrants by 2050, with 200 million being the most widely cited estimate.[24] These figures may appear astounding, but it is important to note that not all affected individuals would move outside of the borders of their own respective countries.

Currently, international organizations use the following criteria to define environmentally induced migration: the origin of the environmental disruption (natural or technological), its duration (acute or gradual) and whether migration was a planned outcome of the environmental disruption (intentional or not).[25] When these principles are applied, it is possible to accept the terms "climate migrant" (for voluntary migration), "climate refugee" (for forced, cross-border migration), and "climate internally displaced person" (for internal displacement).[26] However, in many cases, even if the level of awareness of environmental migration has increased, a real problem persists: the lack of legal status for these categories of people.

According to the Office of the United Nations High Commissioner for Refugees (UNHCR), refugee status entitles a person to asylum in another country for aid and assistance, including financial grants, food, tools, clinics and shelters.[27] Nevertheless, neither the Geneva Convention nor the UNHCR regards environmental displacement as a determinant of refugee status. The UN defines a refugee as a person who is fleeing persecution due to his or her religion, nationality, politics or sectarian origin.[28] In light of current forecasts, it is crucial that this issue be regarded as a global one. Such large population movements are not only the problem of stricken areas. More prosperous regions, namely North America and Europe, will have to do more in the future to absorb the influx of millions of refugees expected to be driven by climate change.[29] Nonetheless, resource scarcity, natural hazards and climate migration are mutually influential. They all cause disturbances, paving a road towards insecurity and violence, thus feeding the conflict cycle.

As more frequent and more intense natural disasters occur and, in turn, create resource scarcity, nations undergo significant stress while trying to prosper or simply to survive. In today's global era, many states depend heavily on natural resources to sustain their economic activity. When one country or faction exploits more than its share of those resources, the interests of other groups and nations are often affected. Conflicts over renewable resources occur in most parts of the world.[30] As seen in the famine caused by agricultural mismanagement in South Sudan, which led to conflict between rival ethnic groups, and in the food crisis that occurred during the Yemen civil war, in which more than 10,000 people have been killed, the effects of climate change on natural resource availability are more apparent than ever.[31]

In the past decade, the findings of several major research projects have shown that natural resource scarcities are already contributing to violent conflicts, particularly in the developing world.[32] Fights over natural assets have grown fiercer as demand for essential commodities increases daily and the supply looks less and less secure. Climate change will stress the world's economic, social and political systems through seven compounded risks, putting pressure on states and societies in fragile situations. In an increasingly connected world, dire consequences in one country can produce global ripples. For example, the drought in Russia in the summer of 2010 led to forecasts of a much-reduced harvest, causing alarm in Moscow.[33] That resulted in Russia's decision to stop exports of wheat as a precaution against likely future shortages, which in turn led to a spike in global grain prices as hoarding and speculation drove market behaviour and other actors tried to buy what was available.[34] A spike in food prices was also a factor in the emergence of the Arab Spring and the political turmoil it entailed.[35]

More significantly, the conflict in Darfur, where violence erupted place following a severe drought in the 1980s, has been described as the "first modern climate change conflict."[36] What was first reported as a tribal conflict between "Arab horseback militias" and "African farmers" was, in fact, a war waged by a government against its own population, in which climate change played a decisive role.[37]

Because climate change creates disturbances on a global scale that intersect with both ecological and social systems, unintended outcomes can be disastrous from an international environmental security standpoint. One recent study concluded that, between 1950 and 2000, 118 of 146 conflicts took place wholly or partially within climate hotspots.[38] As Jock Stirrup, former chief of the United Kingdom Defence Staff, argued, "Just glance at a map showing the area most likely to be affected and you are struck at once by the fact that they're exactly those parts of the world where we see fragility, instability and weak governance. It seems to me rather like pouring petrol onto a burning fire."[39]

Climate change continues to highlight inequities within and between countries, between the core and periphery, and between the developed and less developed regions.[40] Ironically, nations viewed as "smaller polluters" are the first to experience the impacts of other countries' actions. The unfairness of environmental insecurity is obvious: resilient countries and regions, such as the United States, China, Europe, Japan, Canada and Australia, are responsible for the largest concentration of emissions while not suffering proportionately from those effects.[41] Among these countries, Canada holds a unique place characterized by contradictions. It is one of the most climate-resilient countries in the world, yet it witnesses severe impacts first-hand. Canada also prides itself on being one of the most climate-friendly nations, but it also exploits natural resources, such as oil, at a high rate.[42] Canada fully embraces the environmental agenda but does not emphasize the security aspect of its domestic and foreign policies.

CANADA'S POSITION IN A CLIMATE-CHANGING WORLD

It may seem far-fetched to associate Canada with the negative impacts of a changing climate. However, that is far from the truth. As a northern nation, it suffers from the same three outcomes (resource scarcity, intensification and increasing frequency of natural hazards, and human migration) to an alarming extent—in some respects, twice as fast as other nations. According to a recent assessment in *Canada's Changing Climate Report*, there is "high confidence" that Canada is warming at twice the global rate and that the North is warming at three times that rate.[43]

By following the same method used to understand the global environment, it is possible to correlate the effects of each main adverse factor for Canada. In terms of resource scarcity, Canada might seem to be in an enviable position compared to many other nations. With its millions of lakes and rivers, Canada has 7 percent of the world's renewable fresh water and more than 20 percent of the world's total freshwater resources within its borders.[44] That is a considerable quantity, given that only 38 million people, about 0.5 percent of the world's population, live in Canada. However, more than half of that water drains northward into the Arctic Ocean. As a result, the majority of the fresh water remains unavailable to the 85 percent of Canadians who live along the country's southern border, meaning that

immune to them.[48] Far less dramatic than cyclones or hurricanes, but still devastating, are ice storms such as the one that occurred in Quebec in 1998, causing widespread and long-term power outages that affected more than 4 million people.

Increased flooding may also cause future challenges. It expected that nuisance floods, which are already occurring more frequently than before, will continue to proliferate, given an estimated 10 to 30 percent annual increase of rainfall across Canada.[49] Moreover, the cumulative effects of less extreme weather events, including nuisance flooding, could exceed the cost of extreme ones. Flooding alone could cost up to C$1 trillion by mid-century.[50] In addition to these

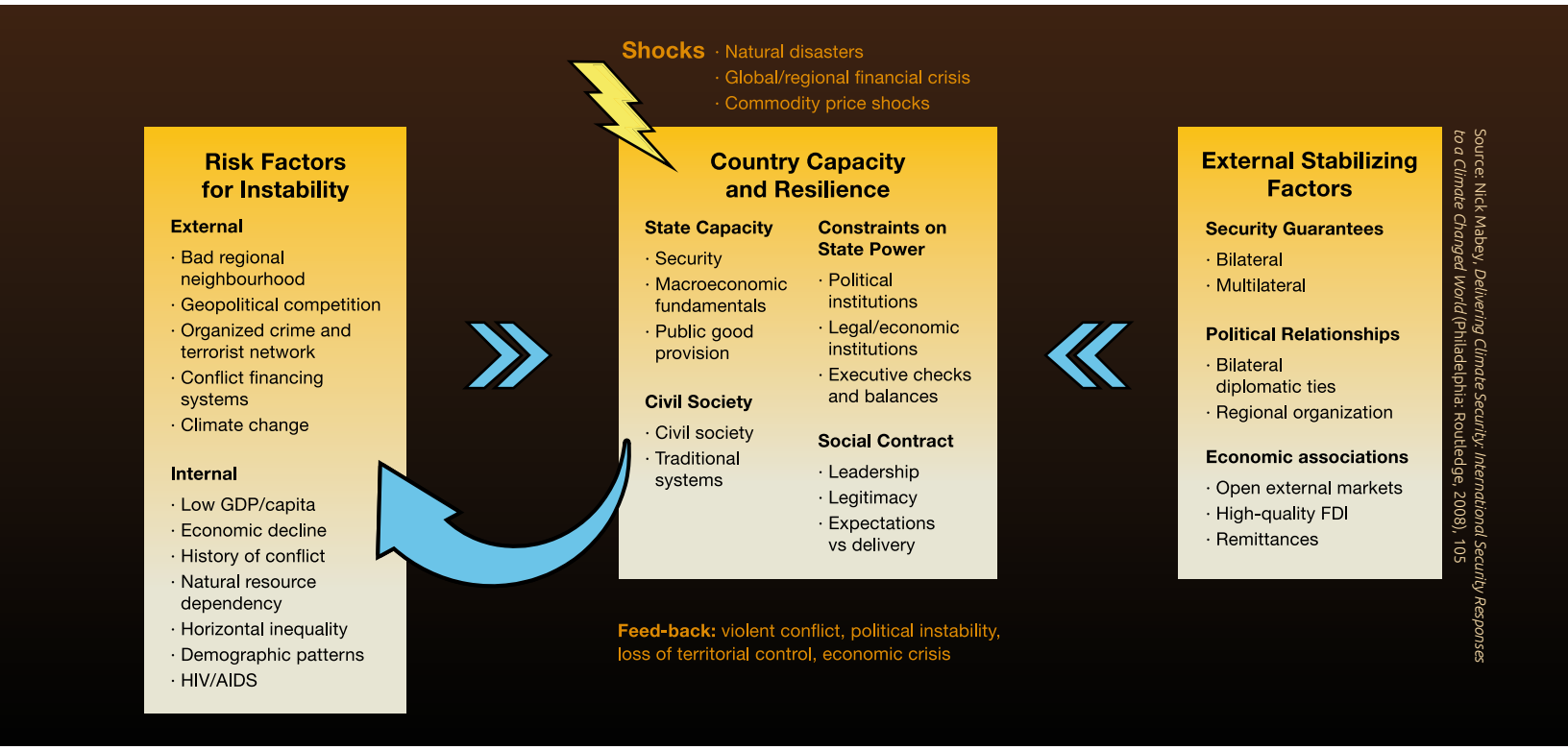


Figure 2: The Instability Framework

the remaining supply, while still abundant, is heavily used and often overly stressed.[45] As water shortages become more likely, Canada's most important concern over water is the protection of its own resources and the stabilization of the regions where tensions over water are increasing.[46]

The second outcome of climate change, the intensification and increasing frequency of natural hazards, already constitutes a significant problem for Canada. In fact, natural hazards account for 70 percent of all disasters.[47] Many models predict that Canada could also experience more severe weather events such as tornadoes, ice storms and hailstorms in the near future, even in areas previously

meteorological conditions, the other main impact on the Canadian environment is forest fires. Current projections indicate that the window of high fire risk will increase between 10 to 30 percent per year over current levels, and that burn areas will increase across Canada by 74 to 118 percent between now and 2100.[51] Overall, Canadian authorities at all levels have acknowledged the importance of the intensification and increasing frequency of natural disasters within the country.

The third main adverse outcome of climate change, population migration, is likely to have the heaviest repercussions for the nation's environmental security.

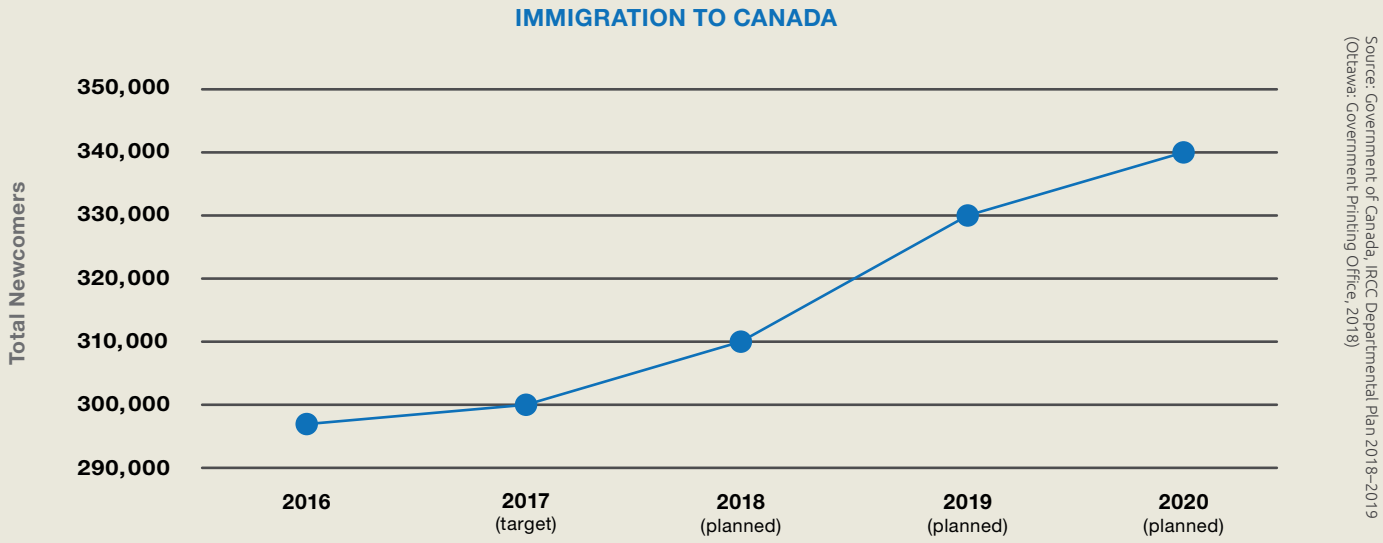


Figure 3: Planned Annual Levels of Immigration to Canada

Understandably, Canada is a country of choice for many climate-driven migrants. The possibility of having to accommodate a larger flow of migration has been recognized for some time now by academics and government authorities because of Canada's geographic vastness, abundance of natural resources, and low population density. Combined with the effects of the changing climate, areas in the country that were previously considered uninhabitable may become more temperate, putting Canada in the unique position of accepting more migrants in need.[52]

In the current global context, according to the UNDESA, Canada ranks seventh for the total number of immigrants that it welcomes annually and second for net migration rate.[53] Every year since the early 1990s, Immigration, Refugee and Citizenship Canada (IRCC) has published departmental plans outlining the desired results and the priorities established for the purpose of meeting those goals. The plans also include expenditures, staffing and other metrics to foster transparency.[54] Over the years, such measures have contributed to shaping the face of Canadian society. In 2013, 20 percent of the Canadian population was foreign-born.[55] In 2011 alone, Canada accepted 249,000 new permanent residents, including 36,200 for humanitarian reasons.[56] This intake has climbed steadily, reaching new heights with the current administration. To that effect, IRCC announced a newly revised target of somewhere between 310,000 and 360,000 new migrants for the year 2020.[57] Although it is impossible to predict the exact flow of future environmental migration, the current context suggests a significant increase. Under the Canadian government's current targets, up to 50,000 migrants per year, including climate migrants, could be welcomed for humanitarian reasons.[58]

In light of the profound tensions that climate change will cause in Canadian society, it is crucial that a holistic and coherent whole of government approach is developed. Yet this is where many contradictions arise. Canada is often seen as a prime advocate of climate change policies. For example, it was one of the first countries to sign the 1998 Kyoto Protocol. However, among the major signatories to that protocol, Canada has one of the worst records, with emissions rising about 26 percent since 1990 and now registering about 34 percent higher than Canada's Kyoto targets.[59] The same pattern has been seen following the ratification of the 2015 Paris Agreement, prompting critics of the federal government to denounce the climate change records of successive federal governments, both Liberal and Conservative, as "years of failure and fantasy."[60]

WHAT DOES CLIMATE CHANGE MEAN FOR THE CANADIAN ARMED FORCES?

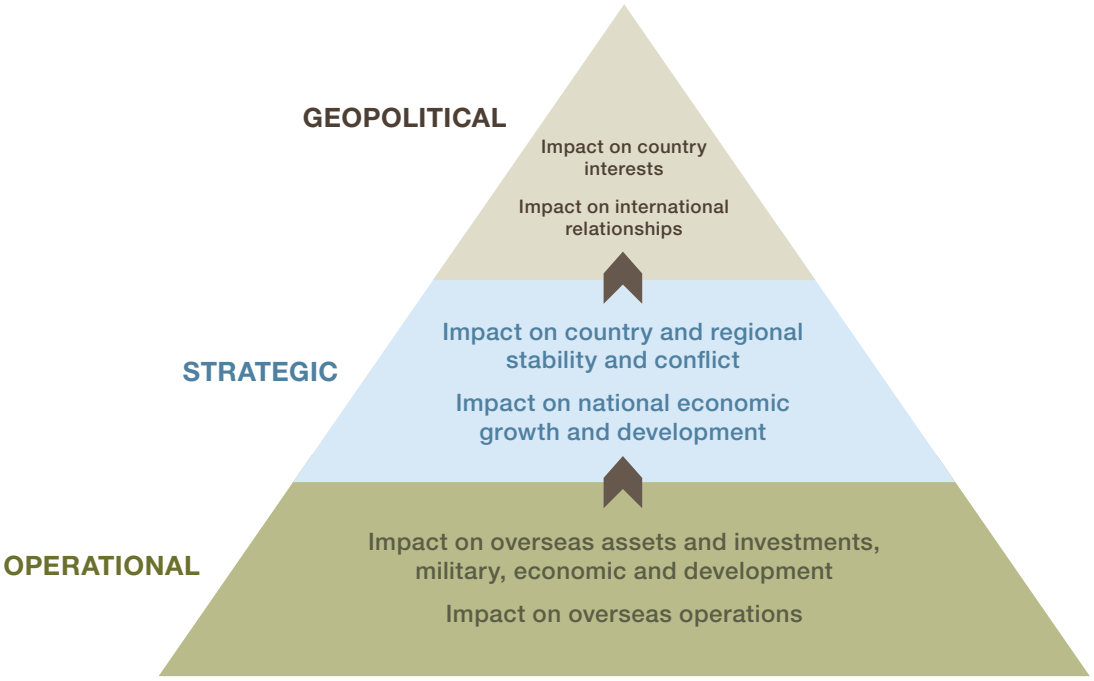
Although Canadian federal policymakers have recently stressed the importance of climate change and its impact on the national and international security domains, these political guidelines are not firmly represented in the National Defence Strategy (NDS). To that effect, the 2016 "Federal Adaptation Policy Framework" sought to "guide domestic action by the Government of Canada to address adaptation to the impacts of climate variability and change."[61] This document sets out a vision concerning the federal government's objectives, roles, strategies, and priorities for action in the medium term, but it does not overlap with any published military documents.[62]

Although the various federal government departments are actively planning for the coming climate crisis, the Department of National Defence (DND) is trailing many others.

At the policy level, the two last NDSs revealed the same lack of clarity. In 2010, the Canada First Defence Strategy focused solely on the Arctic region, offering a few tangible measures. Specifically, it focused on investing in new patrol ships capable of sustained operations in the Arctic to closely monitor territorial waters, investing in a berthing and refuelling facility in Nanisivik, expanding the size and capabilities of the Canadian Rangers, and establishing a new Arctic Training Centre in Resolute Bay.[63]

vehicles to hybrid by 2020; and investing $225 million in a wide range of infrastructure projects to reduce the carbon footprint of DND.[64] Although well intentioned, these measures alone do not represent a tectonic shift in the government's approach, even though the reality of the CAF has changed significantly over the past decade. The CAF strategic leaders have witnessed firsthand the toll that climate change has taken on the deployment of its military forces, both domestically and abroad.

The CAF has a history of deploying at home for disaster relief operations, and Canadian joint doctrine applicable to such operations is well established and very clear. Any provincial or territorial government can make the request



Source: Nick Mabey, *Delivering Climate Security: International Security Responses to a Climate Changed World* (Philadelphia: Routledge, 2008), 56

Figure 4: Climate Security Analysis Pyramid

Following the election of a Liberal government in 2015, a new NDS, "Strong, Secure, Engaged," addressed a greater number of environmental security concerns, but the scope of the proposed measures was limited.

Even though "Strong, Secure, Engaged" clearly identifies climate change as a defining threat for security, once again the focus remains largely on the Arctic region, with not much more being said about the related challenges. Other than the construction of more icebreakers and patrol ships, a legacy from the previous NDS, the other measures presented in "Strong, Secure, Engaged" can be summarized as follows: looking for ways to reduce the carbon footprint of domestic installations; attributing energy performance contracts; modernizing 20 percent of the non-military

for a provision of service and humanitarian assistance operation. The CAF's response for domestic operations, known as CONPLAN LENTUS, delivers strategic effects in requested locations immediately upon receiving a request for assistance (RFA).[65] At that point, the Regional Joint Task Force (RJTF) Commander will employ the CAF assets assigned under the Immediate Response Unit.[66] This support will be limited to filling gaps in civil agency capabilities and can take the form of general duty forces or specialists such as engineers, health services, force protection, transport, aviation, and logistics assets. Although the procedure has not been altered for several years, the frequency and duration of such deployments have changed radically in the last decade. In the period between 1990 and 2010, only 6 such deployments occurred.[67] In contrast, 28 deployments

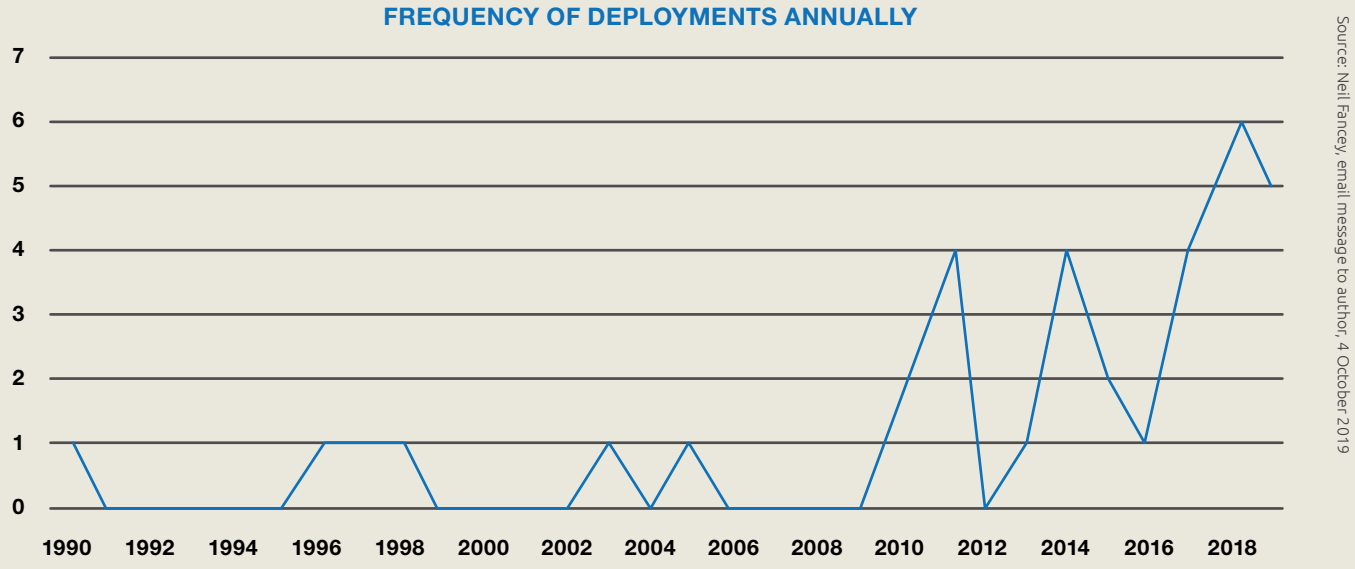


Figure 5A: Frequency, Duration, and Number of Personnel Deployed Annually During Domestic Disaster Relief Operations in Canada

occurred between 2011 and 2019, involving a total of more than 16,000 soldiers, and their combined duration was more than 460 days.

Not only is the CAF deploying more often, but it is also doing so more rapidly, in greater numbers, and for longer periods. Statistics on deployments under CONPLAN LENTUS show a trend over the past six years: military assets are being engaged earlier and more frequently than ever before, and the military is, more often than not, employed to mitigate the effects of emergencies in advance as opposed to responding to crises.[68] To that effect, three out of the last nine RFAs were approved by the military before the emergencies exceeded the provincial resources.[69] There is also constant pressure to keep the troops deployed longer, even after the situations stabilize and no longer exceed the means of local authorities. In addition, due to heavy media coverage of such operations, they contribute to the positive image of the CAF. On the other hand, they also raise public expectations for an immediate response and have the potential to rapidly become politicized.[70] Overall, the increased rate of deployment represents a significant burden for the military at the strategic and operational levels. For a joint force of 62,000 Regular Force members and 25,000 Reservists, it means stretching the force even thinner, in terms of both meeting international commitments and maintaining a physical presence in Canada, where there is no significant military presence in most major Canadian cities and no "national guard."[71]

In a recent interview, General Jonathan Vance, Canada's Chief of the Defence Staff (CDS), reflected on the meaning of sustained and more frequent deployments for the troops. He stated, "These calls for assistance are stretching the military beyond what it was originally designed to handle. … [O]ur force structure right now, I would say, is probably too small to be able to deal with all of the tasks."[72] The additional stress put on the force's battle rhythm translates into operational and personnel challenges. Still, according to General Vance, "If you think of the average year in the life of a soldier, they might be away six months doing an operation outside of Canada, come home, then they could be called out again by the thousands to be dealing with the effects of climate change, while also preparing for their next mission."[73] It is not only the frequency of the domestic deployments that becomes problematic, but also the requirement for additional training. Vance continued, "You just can't go out and fight a fire. You need some training to do that. So we're going to need some forces ready at hand, fully trained to be able to support local firefighters and so on."[74] The additional training required to build temporary infrastructure, respond to floods, fight fires, and support border services takes a significant toll on time, resources, and personnel of an already overburdened force structure and training schedule.

In this context, the equation is simple. As fewer soldiers serve in the CAF and demands for personnel multiply, more stress is placed on the remaining available members, leading to declining retention rates, and so on. In a situation where more soldiers are deployed on home soil than overseas, Canadian strategic and operational leaders must ensure that the armed forces remain flexible, responsive and combat-capable for a wide range of operations, while still being able to cooperate with allies.[75] They must be selective and strategic to answer the following two key questions when considering the deployment of CAF personnel: (1) Which efforts would be of greatest relevance to our national security interests? (2) Do we have the capacity to contribute

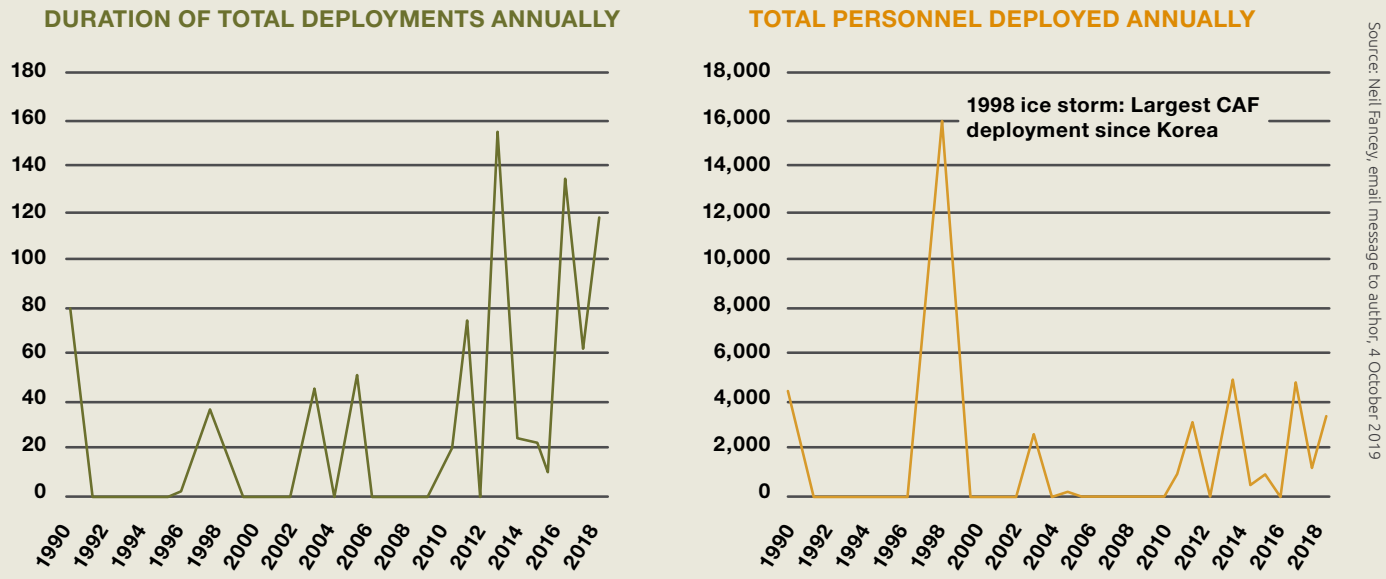


Figure 5B: Frequency, Duration, and Number of Personnel Deployed Annually During Domestic Disaster Relief Operations in Canada

meaningfully to a successful outcome?[76] Asking these questions seems to be easier than answering them, especially in the face of projections suggesting that increased deployments related to climate change might be too much to handle under the current CAF force structure.

RECOMMENDATIONS, OBSERVATIONS AND CONCLUSION

Given that a strong correlation between the impacts of global climate change and environmental security can be established, why is there still laxness in taking more tangible actions? The main argument often brought forward to explain this situation is uncertainty. But although it is true that uncertainty about the future exists, it is important to note that uncertainty is an inescapable element of projecting future events. In the case of climate change, however, what is uncertain is not that the earth's climate is changing, but rather the tempo and scale of how climate change will impact Canadian national security.[77] Even more worrying is the evidence suggesting that the potential effects may be greater than estimated. Indeed, many climatologists now conclude that the IPCC, even in its worst-case emission scenarios, underestimated many aspects of climate change.[78] One of the more disturbing recent findings is that, even if carbon dioxide emissions due to human activity were to stop completely, the impacts of climate change could persist for more than 1,000 years.[79]

In some respects, Canada is already late to the discussion of the security implications of climate change, and it must not continue to lag.[80] Instead of perpetuating climate change trends and their consequences, we should leverage our advantages. With a strong cadre of climate scientists and security analysts, and the added advantage of a small, centralized and fairly cohesive security community,[81] we are well positioned to address the climate change–security nexus in an integrated and holistic way. The adoption of a truly issues-based approach would help to engineer an optimal strategy encompassing internal factors and national goals in relation to Canada's desired global posture.[82] Moreover, such a national policy would enable a proper "sizing and shaping" of the military force to provide the organizational and material strength required to operate advantageously in the near future.[83] However, a path towards a more stable future must involve more than just a military response. Rather than over-emphasizing conflict as a result of climate disturbances, the focus should be on societal development, including building resilience against adverse effects of climate change.[84]

There are potential adverse effects of militarizing the response to climate change, including the rise of "fortress societies" that protect their own at the expense of others.[85] In addition, the invocation of "climate refugees" and "climate conflict" can fuel the militarization of climate policy and may provide new legitimization for global militarism, at the very time when countries need to shift public resources from funding soldiers and weaponry to building the green infrastructure required to address the climate crisis.[86] Lastly, there is the potential for military resources to overrun civilian actors and create dependencies. Ubiquitous involvement of military forces in domestic and expeditionary disaster assistance operations may lead to overreliance on the armed forces to the detriment of local authorities, making it more difficult to sustain emergency responses over the medium and long term.[87]

The key to finding the proper balance in the level of the CAF's involvement and preparation is to ensure the coordination of its approach at all levels, from policy to tactics. When the Doctrine, Organization, Training, Materiel, Leadership, Personnel, and Facilities tool is used to define the current state of the CAF, some encouraging and some less reassuring aspects become apparent. From a doctrinal perspective, the current doctrine is well scoped and provides sufficient references to link the RFA from a provincial government to the CAF, resulting in a more expedient effect.[88]

Source: Combat Camera

Members of the Canadian Armed Forces, the United States Air Force and the Royal Australian Air Force load fire retardant on board a Royal Canadian Air Force CC-177 Globemaster as part of Operation RENAISSANCE.

The variables of organization, training, and personnel should be examined together. For organization, CONPLAN LENTUS and CONPLAN RENAISSANCE constitute separate lines of effort within the Managed Readiness Plan in all regions of Canada under the control of the Regional Joint Task Forces (RJTF). The Reserve Force is also a major contributor and helps mitigate the frictions in force generation. However, this area is the most sensitive, as the force structure is already stretched to a critical limit due to the additional training required, the time deployed on domestic or expeditionary disaster assistance operations, and the increasing frequency of such mandates. The real question is how much the elastic band can stretch before it breaks.

Regarding materiel, no clear direction has been taken. The Directorate for Capability Integration recognizes that climate change is a threat multiplier, but it has not clearly articulated how that will impact force development and future considerations.[89] With the exception of Arctic patrol vessels, no other acquisition processes have been engaged. As the impact of global climate change becomes more widespread, the CAF will need to consider the effectiveness of military systems, capabilities, and platforms associated with operating in extreme environmental conditions.[90]

Given that procurement is a multi-decade endeavour, no advancements are foreseeable in the near future. Conversely, with a greater leadership involvement, this reality could change quickly.

From DND to the CDS, climate change has been recognized as a threat, and all matters related to it are acted upon using a synchronized approach within the main strategic and operational commands. On the other hand, if crisis response procedures are clear, a better operational forecast is necessary. To this day, the recent declarations by the CDS to the effect that climate change creates additional demands on troops have yet to translate into strategic or operational directions.[91]

Lastly, the risks to facilities are real, tangible and imminent. Some infrastructure, particularly naval bases, faces a significant threat from rising sea levels. Considering that DND is the largest building owner in the federal government, with installations in every province and more than 217 cities, the impact could be tremendous financially, but also strategically and operationally.[92]

In conclusion, the Canadian approach to the climate change–security nexus is not flawless. In the face of growing tensions caused by resource scarcity, intensification and increasing frequency of natural hazards, and human migration, good intentions and strongly worded arguments are not enough. Nevertheless, the attention paid to the subject reflects public and institutional will for change. As seen during the 2019 federal election, strong mobilization by Canadians in every part of the country was instrumental in positioning climate change and its consequences among the top collective priorities.[93] Consequently, all political parties across the ideological spectrum became aware of that popular position and modified their electoral platforms accordingly.[94] If this movement remains consistent, there is confidence that it will translate into the articulation of a better security strategy in the years ahead. The CAF has made progress on the matter in the past decade, and there is hope that a more comprehensive approach will be adopted in the near future, with its scope extending beyond the Arctic.

ABOUT THE AUTHOR

Major Jean- François Lamarche joined the Canadian Armed Forces in 2002 as an infantry officer. He has served with the Royal 22e Régiment since 2007, during which time he completed many different assignments with all three Regular Force battalions. He was deployed on Op ATHENA ROTO 7 in Afghanistan as a platoon commander and on Op UNIFIER ROTO 1 in Ukraine in the capacity of J5 and Company Commander. He graduated from the Royal Military College of Canada, the United States Army Command and General Staff College, and the School of

Advanced Military Studies in Fort Leavenworth, Kansas. He holds a Bachelor's Degree in Political Science, a Master of Arts in Management and Leadership, and a Master of Arts in Military Operations. He is currently employed at Canadian Joint Operations Command.

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PREPARING FOR THE NEW COLD WAR:

The Canadian Armed Forces in the Melting Arctic

Merle Lefkoff, Ph.D.

Source: Combat Camera

Members of the Canadian Armed Forces Joint Arctic Experiment deploy a number of satellite targets at Resolute Bay, Nunavut, during Operation NANOOK-NUNALIVUT on 13 March 2020.

Source: Combat Camera

Source: Combat Camera

Students cut snow blocks to build fighter trench survival shelters during the Air Operations Survival Course in Resolute Bay, Nunavut, on 23 January 2020.

Source: Combat Camera

A member of 1 Canadian Ranger Patrol Group

On 25 January 2020, the first case of a new coronavirus was detected in Canada. Lessons learned from combating the SARS outbreak in 2003 helped Canada respond quickly. Nevertheless, as the number of confirmed cases soared in Quebec, 40 Canadian Rangers were mobilized to support provincial authorities.[1] The Canadian Armed Forces (CAF) had been stretched by natural disaster relief efforts and were suddenly in even higher demand to deal with Operation LASER, the CAF response to COVID-19. In March 2020, Defence Minister Harjit Sajjan called for 24,000 more troops to be ready to respond to COVID-19 and the continuing spring forest fires and floods expected to result from climate change. In a recent interview, Lieutenant-General (Retired) Andrew Leslie said, "Don't kid yourself. This is a war … . You have to think clearly, you have to organize yourself." His colleague Lieutenant-General (Retired) Michael Day reminded Canadians, "This is not our first rodeo. We understand what it means to go into high-risk areas with little materiel support. We have been doing that for decades around the world."[2]

The COVID-19 pandemic is a wake-up call, or perhaps even a rehearsal, for the global military challenges that will result from global warming. Many scientists connect the growing number of lethal pathogens being released into the human environment to our changing climate. For example, Harvard's T.H. Chan School of Public Health has identified a link between Lyme disease and malaria and the unusual migration patterns of wild animals as their habitats diminish with deforestation, one of the main contributors to climate change. When animals are forced to search for new homes in previously unexplored territory, they come into contact with potential new viral hosts and transmit pathogens.[3] More pandemics are likely in the decades to come.

In January 2019, for the first time in Australia's history, Prime Minister Scott Morrison announced the compulsory mobilization of 3,000 members of the Defence Force Reserve to assist in fighting the bushfires raging across the continent. With temperatures of 49°C in Sydney, accompanied by 80-kilometre-per-hour wind gusts, and

In 2020, 500 wildfires were burning simultaneously in California. Death Valley recorded a temperature of 54°C, the second-hottest day ever recorded there and the third-highest recorded anywhere on the planet. American climate journalist David Wallace-Wells writes, "Never in the earth's

Source: Wikimedia (Meganesia)

The Blue Mountains bushfire (Gospers Mountain, New South Wales Australia, December 2019).

with hydro lines that power telephone and Internet service in coastal areas down everywhere, Morrison was forced to take unparalleled action.[4] More than 1 billion wild animals and farm animals—including 800,000 in New South Wales—were estimated by University of Sydney ecologist Chris Dickman to have been killed by fire.[5]

A year earlier, Admiral Chris Barrie, former Chief of the Australian Defence Force and member of the Global Advisory Council on Climate Change, wrote in his foreword to a policy paper analyzing climate-related security threats in Australia, "Our intelligence and security services have a vital role to play, and a fiduciary responsibility, in accepting this existential climate threat, and the need for a fundamentally different approach to its risk management, as central to their considerations and their advice to government. The implications far outweigh conventional geopolitical threats."[6]

entire recorded history has there been warming at anything like this speed—by one estimate, around ten times faster than at any point in the last 66 million years."[7]

Confirming what had been widely suspected, researchers have found that human-caused climate change had an impact on Australia's recent devastating wildfires, making the extremely high-risk conditions that led to widespread burning at least 30 percent more likely than in a world without global warming. The researchers concluded that the full influence of climate change on the fires was probably much greater, but that climate simulations, which form the basis of this type of study, underestimate extreme heat trends in Australia compared with real-world observational data. "We're very sure that is a definite number we can scientifically defend," said the lead author of the study, Geert Jan van Oldenborgh of the Royal Netherlands Meteorologic Institute, referring to the 30 percent figure.[8]

No place is warming faster than the Arctic. A 2019 report led by Environment and Climate Change Canada revealed that Canada's North is warming at more than double the global rate.[9] Almost 40 percent of Canada's land mass lies within the Arctic Circle, and more than 100,000 of its people live there. The Arctic is predicted to continue to warm faster than anywhere else on Earth. The ice-rich Arctic permafrost, which acts as a complex, non-linear cooling system for the planet, is melting faster than anticipated, outstripping the climate models, releasing greenhouse gases that speed up climate change.[10] A new scientific study by researchers at Ohio State University led by scientist Ian Howat concludes that Greenland's ice sheet has melted past the tipping point and that efforts to slow global warming will not stop it from disintegrating. "We've passed the point of no return but there's obviously more to come," Howat said. "Rather than being a single tipping point in which we've gone from a happy ice sheet to a rapidly collapsing ice sheet, it's more of a staircase where we've fallen off the first step but there's many more steps to go down into the pit."[11]

The world is not ready for the unprecedented security risks that arise from the challenges of global warming, according to the Council on Strategic Risks. In its recent report on the need for a new governance framework for managing the risks to global security, the Council details a process that utilizes a foresight methodology to "prepare and prevent."[12] In complex, non-linear systems such as Arctic weather, "Uncertainty is the only certainty there is. And knowing how to live with insecurity is the only security."[13]

Contributing to the chaos and lack of situational awareness in the attempt to prepare a global response to a near-term climate disruption is the dismantling of former global institutional cooperation in today's multi-polar world. However, there is good news on the horizon. Old collaborative frameworks that have not worked well in the past have a chance to be replaced in Canada and elsewhere by embracing the whole-of-government (WoG) approach that Canada's military tested and linked to strategy during the Afghanistan mission. Even more important in preparing the CAF for success in the Arctic is the comprehensive approach, which expands WoG coordination to include allied and impacted governments, civilian specialists, international civil society groups, International Non-Governmental Organizations (INGO) and others on the ground. Despite ongoing problems bringing civil society organizations and the Canadian Armed Forces together as leaders of INGOs become more aggressive in their insistence on participating in strategic conversations, the levelling of former top-down command-and-control non-inclusive cultures continue to open the door to broadening inclusion and coordination.[14]

These are unprecedented times in human history, requiring a complete reset of our past operating systems. Given the uncertain future we face on a planet assaulted by general oblivion to the consequences of potential ecosystem collapse, a question worth considering is the relationship between the new 21st-century Canadian security operations and a historic commitment to peacekeeping. We might ask: how can we now harness the power of the new approaches to security operations to help keep the peace as climate change assaults our living systems, and chaos, conflict and the need for humanitarian assistance arising from climate disaster is likely to emerge on an unprecedented global scale? In a working document intended for the new incoming members of Congress and civil society leaders after the chaotic and unpredictable 2020 U.S. elections, Lorelei Kelly and Dana Eyre reframe the issue of "security" to one of "safeguarding." They state, "A security framework aims at defeating or destroying a perceived threat" and is often reactive. On the other hand, "a *safeguarding* framework … is a preventive framework based on maintaining safety."[15] [*Emphasis in original.*] Success in the Arctic may require both.

A more complex and unpredictable security environment is emerging as the result of the novel challenges of global warming. Rising climate-driven migration is one such challenge. Frightening and massive ecological changes and potential social upheaval resulting from fire, drought and the loss of arable land and water, mentioned by Admiral Barrie in his 2018 report will spur increasing migration from failing states in the grip of food insecurity.[16] At the United Nations (UN), David Beasley, who directs the World Food Programme, has warned of a "perfect storm": hunger, climate change and human-made conflicts.[17] The UN reports that "Global hunger—after showing decreasing trends for decades—is on the rise again since 2016, due to factors that include the combining effects of climate change and

Source: Wikipedia (Eddiem360)

The Bobcat Fire in Monrovia, California (10 September 2020)

Source: Adobe

conflicts."[18] A recent Intergovernmental Panel on Climate Change report concludes that competition for water and food among hundreds of millions of people will intensify, raising the spectre of violent conflict and war and making climate change a primary military issue.[19]

At the South Pole, the Antarctic ice sheet melt tripled over a two-decade period, from 49 billion US tons per year in 1997 to 219 billion US tons in 2017.[20] What happens at the two poles affects the weather everywhere in the world. We need a broad Arctic ice surface in order to deflect heat from the sun and send it back into space instead of retaining it in the global atmosphere. An estimated 280 billion metric tons of ice from the Greenland ice sheet melts into the warming ocean every year and is "the greatest single contributor to global sea level rise."[21] In addition, it is well known that Arctic permafrost, which has a very large storage capacity for carbon and methane, is also thawing rapidly and releasing those greenhouse gases, another driver of change and danger. The increasing emissions can increase the heat trapped by the greenhouse effect, which in turn can lead to more thawing. This feedback loop, though not fully understood, is one of the better known and more worrying potential climate change effects.

Anticipate, Adapt and Act. In 2017, responding to new and unexpected challenges in an increasingly complex operational environment of unfolding conditions on the ground, including the looming threat of global warming, the Canadian government released a new defence policy, "Strong, Secure, Engaged." Chapter 6 of the policy introduces a mandate called "Anticipate. Adapt. Act."[22]

It bears a notable resemblance to United States Air Force (USAF) Colonel John Boyd's O-O-D-A Loop model (Orient, Observe, Decide, Act), which was never completely adopted by the joint United States and Canadian military community (except in the United States Marine Corps). With particular relevance to concepts including "network-centric" and "fourth-generation warfare," Boyd's briefings about resilience and adaptation, decentralized command structures, and plain and easy weapons were well known throughout many military services and eventually appeared in a variety of doctrinal statements.[23]

Perhaps the most important of the three A's in Strong, Secure, Engaged is the first, "Anticipate." Complex systems science reveals a basic understanding about non-linear versus linear foresight. In cause-and-effect linear activities such as building a new weapon system, the designers and engineers want to be assured that they can predict exactly how the new system will operate. How, when and where the new system will be used, however, will depend on the highly complex, rapidly shifting action in the theatre, whose non-linear changing conditions offer little opportunity for prediction; the best that can be achieved is anticipation. As Field Marshall Helmuth von Moltke the Elder famously reminded his troops, "No plan of operations extends with any certainty beyond the first contact with the main hostile force." This has never been truer than in today's volatile and dynamic environment. Writing recently about the complexity of 21st-century security operations, Richard Roy is even more direct: "[M]ilitary linear planning— a presumption of the ability to link cause and effect—is unhelpful Notwithstanding the claims of the 'apostles' of effects-based planning, such linkages rarely exist."[24]

Strategic foresight as practised in the Canadian Army is different from traditional strategic planning, which relies on forecasting. Forecasting is a linear process intended to control the conditions on the ground as much as possible by meeting stated goals and objectives. Foresight, on the other hand, welcomes uncertainty as an ongoing reality that demands a different and challenging way to solve urgent problems. As an academically rigorous method for producing scenarios that describe alternative futures to address emerging risks, the process is essential to anticipating changes in the CAF necessary for mission success in the future.[25] Indeed, the Canadian Army's three-volume set titled *Canada's Future Army* is indicative of this non-linear, forward thinking which articulated alternative futures built around the critical uncertainties of global environmental change and energy sustainability.[26] Although this research was conducted to support Canadian Army capability development, it can also provide support to intelligence-gathering and analysis efforts in the Arctic.

Enhanced and coordinated intelligence gathering and analysis [Joint Intelligence, Surveillance and Reconnaissance (JISR)] tops the list of the critical elements necessary for understanding, anticipating and preparing to respond to sudden, unforeseen threats. An important new JISR initiative also gives priority to joint information gathering and processing as a research and development opportunity for discovering new technologies that will boost the capacity for surveillance in the Arctic.[27] This is especially important given that scientific research results based on new data on the melting Arctic appear almost weekly.

New initiatives as part of the second of the three A's, the "Adapt" mandate, celebrate Canada's North and its "ice-filled seas."[28] It appears, however, that the celebration may be over very soon. With the Arctic warming three times faster than the global average, most scientists grimly acknowledge "the inevitability of ice-free summers, perhaps as soon as 2035." Alex Petty, a polar scientist at NASA's Goddard Space Flight Center, concludes, "It's definitely a when, not an if." Petty describes Arctic sea ice as "an endangered species." The volume of summer ice in the Arctic sea has decreased by 75 percent in the past 20 years, and Arctic summers will soon be completely ice-free.[29]

"Adapt" begins with a reminder that the Canadian military has a history of collaboration with academic experts that strengthens defence policy-making, driving innovation and the development of future thought leaders.[30] Diversity of thought and action will also be multiplied by a new initiative which gives Canadian Reservists, with their diverse primary occupations and deep local cultural experience, an opportunity to play a larger support role in the search for more agility when facing novel challenges such as climate change.[31]

USCGC TAHOMA (left) and HDMS TRITON (right) traverse the Eternity Fjord in Greenland ahead of HMCS GLACE BAY (not pictured) during Operation NANOOK 2020 on 15 August 2020.

Source: Combat Camera

Even deeper cultural experience with the changing climate in the Arctic has been held for thousands of years by the Indigenous peoples of the circumpolar North. They are able to offer timeless knowledge at conferences and strategic deliberations that provide additional critical insight into the complexity of the problems facing populations in the region, particularly when it comes to maintaining sustainable food systems.[32]

The military is committed to reducing its carbon footprint in order to meet the government's Federal Sustainable Development Strategy goal of a 40 percent reduction by 2030. At the same time, it is important to note that, when it comes to adapting to the reality of global warming, National Defence currently represents half of the Government of Canada's contribution to the country's total emissions—a paradox indeed![33] The U.S. military has been involved in "endless war" since 2001, and it takes a lot of energy and fossil fuels to keep the military protected and supplied. A new report from the "Costs of War" project at Brown University found that the U.S. Department of Defense is "the world's largest institutional user of petroleum, and correspondingly, the single largest producer of greenhouse gases in the world."[34] It seems unlikely that the CAF and the U.S. military will be able to reduce their respective contributions to climate change, unless at the same time they take a harder look at the consequences of gearing up to face the new threats in the Arctic caused by the same greenhouse gas emissions they have promised to reduce.

With the Greenland ice sheet and the Arctic sea ice melting, the new military challenge for the CAF, together with their North Atlantic Treaty Organization allies, is enhanced surveillance and protection of both aerospace and the shipping lanes that are rapidly opening new approaches to North America. Adaptation to the "changed security environment" is revealing the need, for example, to replace the old North Warning System (NWS) so that it can help meet the new challenges in the territorial sea beds. However, the primary goal for the new early warning problem for the North American Aerospace Defence Command and the NWS seems to be an old one that is newly complex: the possibility of more sophisticated incoming cruise missiles and ballistic missiles.[35]

Russia, a member of the Arctic Council, has been more aggressive lately in seeking to protect its many military and resource assets in the region. With long-time and newly threatening military assets on the ground, including a new network of missile systems, Russia is partnering with China, which has no polar coastline, to help the Chinese stake their own claim. Together they are opening weather research centres in Iceland and on Svalbard Island in Norway, both of which readily welcomed the Chinese economic interest, which includes heavy investment in energy and minerals in Greenland. China is also proclaiming its Belt and Road economic strategy in the North as a potential "Polar Silk Road." The Arctic countries are becoming more wary of China, however. "Yet by moving into the Arctic, China is entering an area that is disputed in much the same way that portions of the South China Sea are disputed. Canada and Russia, the US and Denmark all have interlocking claims."[36]

The USAF is on the ground in Alaska and Greenland, carefully watching the opening of the new sea lanes with their vast amounts of undersea resources, including oil and rare earth metals. At a recent panel discussion hosted by the Atlantic Council, Secretary of the Air Force Barbara A. Barrett suggested that "Historically, the Arctic, like space, was characterized as a predominantly peaceful domain…. This is changing with expanded maritime access, newly discovered resources, and competing sovereign interests." At the same time, Barrett noted, "The Arctic should remain a free and open domain for benevolent actors, and it is a critical domain to protect America's homeland." Air Force Chief of Staff General David L. Goldfein stated that all the United States military services, including the Coast Guard, would be jointly mobilized to "ensure free access to the region."[37] Additionally, as part of its master planning, The Naval Facilities Engineering Command released its "Planning Handbook on Climate Change Installation Adaptation and Resilience" for use by planners in assessing climate impacts and evaluating adaptation options.[38]

The headline in *National Geographic's* September 2019 issue was "The New Cold War." Competing countries are racing to gain a foothold in the melting Arctic, the magazine's correspondents reported, "setting the stage for conflict at the top of the world."[39] Vivid photos of U.S. and Canadian soldiers conducting joint training exercises "derived from The Winter War, fought between Finland and the Soviet Union in World War I" and parachuting into Alaska to prepare for coordinated operations in extreme cold-weather environments are accompanied by equally startling maps of the military bases and airfields ringing the eight Arctic countries. In the world north of 66 degrees latitude, the new frontier now "open for business" offers the riches of new shipping lanes and vast mineral deposits.[40]

The last of the three A's, "Act," addresses the core mission of the CAF: assurance that they have achieved success in all their operations, with an increasing focus on the Arctic.[41] Success in the Arctic will depend on using to the fullest the most sophisticated methodologies to facilitate anticipation and adaptation, because the challenge that comes with the non-linear uncertainty of weather makes prediction and anticipating future trends more consequential than ever before.

Methods such as strategic foresight inquiry can help anticipate emerging defence threats as the weather becomes more chaotic and dangerous, particularly in rapidly changing theatres such as the Arctic. Strategic Foresight models and methods are maturing into a new problem-solving discipline, increasingly used to help prepare a response to this new environment, understanding that the goal is not prediction, but rather an intention to step into a future that does not yet exist and get ahead of trends before it is too late to intervene.[42]

Living in a complex system requires us to embrace and even harness uncertainty. Instead of attempting to narrowly forecast and control outcomes, we need to design systems that are robust and adaptable enough to weather a wide range of possible futures. Evolutionary Biologist Stuart Kauffman studies global economic systems, using a futures concept called "the adjacent possible" (TAP) that has a place in both Western complex systems science and the Indigenous science of sensual participation in the natural world. His research concentrates on that which can *arise* next, given what is *actual* now.[43] We know that humans have difficulty thinking about an unknown future without using the past and present as a guide. And neither personal experience of extreme weather nor reports of global climate trends pointing toward ever-increasing climate emergency has strengthened the political will to take the actions necessary to mitigate the worst impacts.

The challenge in using TAP is starting with the *actual*, and we, The Centre for Emergent Diplomacy,[44] ask the question: what initial conditions on the ground at the present time do we want to change? We then work to imagine adjacent possible solutions and actions for living sustainably with the changes we imagine could happen. This is the reason our TAP groups include science fiction writers whose profession is writing stories about an imaginary future. Military scenario planning is a form of story telling that leads to a stated goal, requiring a leap into the unknown rarely taken by traditional diplomats, who prefer negotiations informed by data-driven speculation based on current intelligence. The adjacent possible goes one step further, using scenario *building*, also a collaborative story-telling process that requires attention to the dynamics of emergent creativity, but it sets goals aside to ensure that the creative space is left open.

Although we cannot state what will happen in the future, Kauffman reminds us that as part of nature we also "partially co-create the ever growing and changing adjacent possible."[45] That is why we are careful to allow for continuous feedback loops during the problem-solving process, because discovering the most creative solutions is not a linear planning process. When a group meets to find solutions for moving forward in the unknowable future, the intention should be clear: to come up with a novel and untested series of possible actions that will be adaptive and robust in the face of perturbations of the rapidly changing environment.

The Arctic Council has recently noted that the COVID-19 pandemic offers a unique opportunity for continuing work on Arctic cooperation, prioritizing digital connection because the Arctic's 4 million inhabitants "are the heart and soul" of the region. The Council also insists that "In uncertain times such as these, it is—perhaps more than ever—important for international cooperation to continue."[46] The CAF, with their unique expertise in both the comprehensive approach to solving problems and the Canadian Army's pioneering methodology for bringing collaborative ideas into action, can be an even more important player in the search for a hopeful, peaceful and sustainable planetary future.[47]

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ENDNOTES

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THE ASYMMETRIC ARMY

Transforming the Army for *Force 2025*

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Source: Adobe

PART I: INTRODUCTION

As the Canadian Armed Forces (CAF) enters the 2020s, it finds itself operating in an international environment facing a series of pacing threats—state and non-state actors making progress toward militarily challenging the West. In the face of these threats, the CAF is adapting. Under the aegis of *Strong, Secure, Engaged: Canada's Defence Policy (SSE)*, the CAF has undertaken efforts to identify and build the appropriate force structure to meet the operational requirements of an uncertain and competitive international environment.

Strong, Secure, Engaged: Canada's Defence Policy demands an agile, multi-purpose, combat-ready Canadian Army capable of contributing to the CAF's eight core missions through execution of multiple, concurrent domestic and international operations.[1] While the Army continues to prepare and deploy soldiers abroad in the face of increasing peer-competitor threats and growing irregular adversary capability, it is now challenged by the fact that its force-generation construct, *Advancing with Purpose*, 3rd edition, is based on old defence policy and was built for a force structure established at the end of the Cold War.[2] For these reasons, concurrent operational demands and the various probable future mission sets in the coming years will challenge the Army to ensure that it provides the widest array of force elements to the joint force in order to remain a relevant component of Canada's defence. In response, the Army has reinvigorated its future force design with the *Force 2025* initiative, promulgated by the Commander of the Canadian Army in September 2020.[3]

This article argues that the Canadian Army should reorganize into an asymmetric force structure built around light-, medium- and heavy-force brigades and revise its Managed Readiness Plan (MRP) to ensure that it is best postured to meet the concurrency requirements of *SSE* and the operational demands of the current and future operating environment. The impetus to restructure the Army is driven in part by operational demand and resource constraints, and in part by the opportunity to optimize the light, medium and heavy force elements[4] to maximize proficiency and force readiness. *A Force 2025* asymmetric army can—through better organization of how it fights, trains and lives—provide a superior force-generation base for *SSE*, giving the CAF adaptable and flexible force packages in the decades to come.

PART II: THE IMPERATIVES FOR CHANGE

Any proposal for restructuring the force must be derived first and foremost from operational requirements: function must drive form. The policy *SSE* speaks to the future operating environment and the requirements of the Army, while the Army's new capstone concept, *Close Engagement*, looks specifically to the future land operating environment and how the army can best contribute to the joint force.

The key determining factor in the Army's force structure should be the operational environment in which it is expected to compete. *Strong, Secure, Engaged: Canada's Defence Policy* describes the future operating environment as being defined by three key security trends.[5] First, the future security environment will be defined by the evolving balance of power, which is driven by changing patterns of influence among state and non-state actors. The Army will be expected to operate in an environment where peer-state adversaries are more and more active. Second, there is the requirement to adapt to the changing character of conflict. Driven by the evolving balance of power, conflict is evolving as adversaries seek to achieve political objectives through competitive means other than violence and force-on-force engagements. Within what is often termed the "grey zone," the Army will operate against adversaries who use tactics, often asymmetric and ambiguous in character, to create adverse conditions to pre-empt our military operations or avoid confrontation with Western military forces.[6] Lastly, rapid technological evolution will force the Army to constantly review its structures and operating concepts to properly adapt to the double-edged sword of information-age technologies, which provide future advantages and create new vulnerabilities.

In recognition of this operating environment, *SSE* requires the Army to maintain "the proper mix of combat capabilities, the ability to operate jointly with the rest of the Canadian military and in concert with key allies and partners"[7] as the critical determinant of success. This will be based upon the scalability and adaptability of the brigade group and its ability to generate combat power in the form of self-sufficient combined-arms teams.[8] *Close Engagement* amplifies this requirement and identifies five areas for Army evolution over the next 15 years: connectivity, agility, adaptability, integration and robustness.[9] *Force 2025* is the initiative by which the Army will analyze and design a force structure to best achieve these requirements.

Although *Close Engagement* examines force employment trends and challenges, the Army's approach to force generation to meet these challenges is out of date. *Advancing with Purpose* was designed to fulfill the six missions of the previous government defence strategy, and it defined an output based on lines of operation for domestic response, an international sustained operation and a minor international surge operation.[10] The Army's MRP, designed to manage force generation to accomplish these tasks, has had to evolve continuously to address the fact that the major sustained and minor surge mission set is simply not robust enough for the operational demand faced since 2014.

As a result of this evolution, the Army now puts an entire brigade at a time through a high-readiness work-up cycle, which is almost inevitably followed by posting many of the leaders of these teams out immediately after validation, prior to actual deployment. Other analyses of recent force development efforts have reviewed the Army's current structure, raising concerns that it is less than optimal in meeting the requirements of *SSE* and *Close Engagement*. Issues raised have included the sustainability of the current structure, an inefficient annual training cycle that results in posting turbulence, excessive training costs and the potential for insufficient capacity of key supporting capabilities.[11]

All of this means that the Army as currently structured is not fit for purpose. It is a legacy structure inherited from the end of the Cold War, which saw the disbandment of 4 Canadian Mechanized Brigade Group (4 CMBG) and an end to Canada's forward deployment in Europe, the disbandment of the Canadian Airborne Regiment and the creation of three symmetric CMBGs based in Canada.[12] For nearly 25 years, this structure centred on producing one or two infantry battle groups to deploy on a series of peacekeeping, peace enforcement and counter-insurgency missions.

This 25 year-old symmetric structure is straining to deal with operational demands following the end of combat operations in Afghanistan. The desire to regain proficiency in brigade-level operations has caused the Army to deploy more and more of its forces into a readiness cycle, with annual brigade validation exercises consuming a large part of the Army's training resources and efforts. Despite preparing an entire brigade, non-templated missions, such as Building Partner Capacity (BPC) missions in Ukraine or Iraq, or integrating into a NATO battle group in Latvia, result in the deployment of organizations that look very different from the light armoured vehicle (LAV) based medium-force battle group which the current force structure is designed to produce.

To stay relevant and meet the requirements and aspirations of *SSE* and *Close Engagement*, the *Army of Force 2025* must ensure that its force-generation outputs are relevant to the joint force. This relevance can be summed up in a value proposition: the Army provides scalable land power to deter and, if required, defeat adversary actions as part of the joint force. To deliver on this value proposition in the current strategic environment, the Army must

1. leverage its partnerships and activities to maintain regional understanding and access around the globe;

2. be capable of providing land force elements that can detect, counter and disrupt adversary activities below the threshold of armed conflict;

3. be ready to provide rapidly deployable land force elements to respond to crises around the globe; and

4. produce forces capable of transitioning rapidly to ground combat missions in any theatre and climate, and against any adversary.

In light of this value proposition, there are three imperatives that support the move to an asymmetric army. First is the operational demand of the government's defence policy commitments. *Strong, Secure, Engaged: Canada's Defence Policy's* concurrency requirement demands a mix of force packages for missions, which the Chief of Force Development (CFD)'s Force Mix and Structure Design (FMSD) study has analyzed, that determine the nature of probable future missions for deployed CAF force elements. The FMSD mission sets provide a variety of operational scenarios requiring the Army to force generate elements for rapid response, sustained presence or a surge of combat power. An asymmetric Army structure creates an optimal base for this.

Second is the requirement to institutionalize light forces, represented in the 2017 Master Implementation Directive (MID) for Light Forces. Although purpose-built light forces have been present in the Army since the inception of the Canadian Airborne Regiment in 1968, they have, since 1993, largely been an adjunct force in the CMBGs. The Commander Canadian Army's intent is to provide "purpose built, scalable and agile light forces" that can generate and sustain fighting power without dependence on fighting vehicles, achieve increased strategic and operational responsiveness through deployment by air, land and sea, and have the personnel, equipment and training to operate in selected unique environments.[13] The creation of an asymmetric army would provide a home for Canada's light forces to fully operationalize the directive.

Third, the requirement to move to an asymmetric army is driven by the realities of resource constraints and the need to concentrate the Army's medium and heavy forces in the face of resource limitations. The Army is confronted with the hard reality that it simply does not possess the platforms and resources to maintain three equal and fully enabled mechanized formations capable of generating light, medium and heavy forces. Symmetry is inefficiency, and the Army cannot afford inefficiency. This is especially noticeable with "low-density, high-demand" platforms such as tanks, armoured engineering vehicles and the support platforms to keep these vehicles functioning. The asymmetric army would create efficient and focused centres of excellence for optimal generation of medium and heavy forces.

PART III: THE ASYMMETRIC ARMY

The asymmetric army proposed in this article presents a structure which responds to, and optimizes for, the above-mentioned imperatives for change. The following proposal for the asymmetric army is structured in terms of how the Army fights (its operational output), how the Army trains (how it builds land combat power) and how the Army lives (how it is organized in Canada).

The proposed structure is bounded by specific restraints to maintain feasibility as an evolutionary course of action. The first restraint is that this proposal does not eliminate any units from the army. While proposed force restructuring could certainly do so, such a wholesale review requires deeper study of implications beyond the scope of this work. Likewise, this proposal does not consider closure of any existing bases or armouries, as the details of defence infrastructure are outside of this analysis, nor does it propose any changes to the existing Divisional structure, to the Canadian Army Doctrine and Training Centre (CADTC) or to the institutional Divisional Support Groups. The proposal is focused on generation of the joint force, and analysis of the institutional side of the army is an important topic for further exploration. Lastly, this proposal does not consider the organization of the Army Reserve. It accepts the progress gained in assigning mission tasks to each unit of the Army Reserve and acknowledges that a change to the Regular Force structure could have significant implications for the Army Reserve that are worth exploring in follow-on analysis.

This proposal also makes certain assumptions related to the Army's near-term roles and size. In proposing an asymmetric army, this article makes the following assumptions:

1. There will be no significant change to the overall Regular and Reserve establishment of the Army. Any increase in personnel would be helpful, while a sharp decrease would force the Army to reconsider its fundamental structure.

2. Units and sub-units will be fully manned for force employment purposes. Although this is certainly not the case now, due to current unit establishments and personnel turbulence, the Army has methods (cross-posting, reserve augmentation) of addressing these issues.

3. The logical output of *SSE* concurrency as the operational demand for the CAF and the Army will remain as is for the foreseeable future. It is possible that *SSE* may be replaced by future governments in the near term, but the logic of FMSD and the high demand posed by the international environment means that concurrency of operational output will remain.

4. No new major equipment acquisitions, other than those currently in the Army force development system, are assumed in the proposal. New programs to address existing Army capability gaps would be a welcome addition to proposed structure, but none are included in the asymmetric army estimate.

Any organizational proposal for the Army must be rooted in function—operational output—with form flowing logically from it. Determining how the Army should live and train must start with a consideration of how its forces will fight. How the Army fights is derived from analysis of operational demand for force elements, tactical requirements of the current operating environment and sustainability of a force-generation base.

Defend Canada **DART Deployment** **NEO** **Small Missions**
2 x Minor Time-limited Deployments
2 x Minor Sustained Deployments
2 x Major Sustained Deployments
1 Major Time-limited Deployments
Surge of Forces for Major Contingency

Table 1: *Canada's Defence Policy* Concurrent Task Requirements

HOW THE ASYMMETRIC ARMY WILL FIGHT: OPERATIONAL OUTPUT

The Army's operational output is defined in *SSE*, which states that the CAF must be capable of undertaking concurrent operations in Canada and abroad. Core to these tasks are the defence of Canada (including support to domestic authorities) and international response to foreign disasters and non-combatant evacuation. This implies a continued contribution by Canada to smaller UN missions around the globe. In addition to these core tasks, there is the requirement to contribute to international peace and security through a series of minor and major operations, limited or sustained in duration, outside of Canada. Lastly, the requirement to surge a significant element of the

DOMESTIC RESPONSE	SUSTAINED PRESENCE
1. Domestic Immediate Response Unit (IRU)	7. Building Partner Capacity Rapid Response
RAPID RESPONSE	8. Alliance/Coalition Deterrence
2. Defence of Canada	9. Chapter VI Peace Support
3. Non-Combatant Evacuation	**SUSTAINED/SURGE COMBAT OPERATIONS**
4. Foreign Disaster Response	10. Chapter VII Peace Enforcement
5. Epidemic Response	11. Coalition Counterinsurgency
6. Global Crisis Response	12. Conventional Combat Operations

Table 2: Land Operations Mission Sets

CAF to fight in a major regional contingency is implicit in the requirement to meet Article 5 NATO commitments (see Table 1 for the concurrent task list).

Although *SSE* provides the CAF with core missions and a list of concurrent tasks that it must be prepared to execute, the policy does not specify which of those tasks the Army will contribute to. Clearly, some or all of them will involve other elements of the joint force. To better understand the likely mix of missions and force element requirements for *SSE* tasks, CFD's FMSD initiative analyzed historical missions conducted by the CAF, their frequency and their requirements in terms of joint force elements. That analysis resulted in a joint scenario package consisting of likely mission sets and the likely joint force demand for each specific mission.[14] Based on the joint scenario list, twelve types of tasks can be identified that would likely require a large land force component contribution. Those missions, organized into four distinct mission sets (Table 2) provide a picture of the Army's likely missions in the future.

The four mission sets—Domestic Response, Rapid Response, Sustained Presence, and Sustained/Surge Combat Operations—encompass a series of distinct operational tasks with specific requirements in terms of time, space and force. The Army must ensure that its force-generation base is optimized to produce force elements that can operate successfully in any of these mission sets, in any environment and against any adversary. The proposed asymmetric army is better suited, through efficiency and proficiency, to produce cohesive and adaptive land combat power from across the spectrum of light, medium and heavy forces to meet concurrency demands across all of these mission sets.

The first mission set is Domestic Response, which can take the form of a variety of tasks, including security-focused aid to civil power and humanitarian-focused disaster response. Distinctive factors of this mission set are that the Army and the CAF play a supporting role to provincial, territorial and federal governments, and that such missions usually call not for formed tactical elements but for organized and capable organizations to support strained civilian agencies. Canada's geography generally requires four to five Immediate Response Units (IRU) prepared to respond at all times.[15] Each IRU consists of a vanguard sub-unit and the necessary follow-on elements to satisfy a "Request for Assistance." The Army Reserve plays an important role in enhancing the Army's response to Domestic Response tasks by providing follow-on forces. Risk is typically assumed by having the IRU tasked to units currently training for other mission sets, ensuring coverage in case of an emergency while allowing the Army to focus on tactical readiness.

The second mission set is Rapid Response, which, unlike Domestic Response, can occur anywhere around the globe and requires formed tactical elements. It may include responses to humanitarian crises, such as Non-Combatant Evacuation Operations (NEO), Foreign Disaster Response (serviced by the Disaster Assistance Response Team [DART]) and Epidemic Response, all of which may require force protection for mission-specific specialist elements.

The Rapid Response mission set also has other missions calling for force projection instead of humanitarian response. The Defence of Canada mission requires rapid projection of a force anywhere into Canada's vast geography, for tasks ranging from sovereignty exercises or operations to Northern force protection or deterrence.

The Global Crisis Response mission is one of short-notice deployment of Canadian land power anywhere around the globe: the purpose of this type of mission could be to respond to a perceived threat to an ally or partner, to demonstrate Canada's resolve regarding a specific interest or to project forces as part of a coalition into a rapidly changing or deteriorating situation. In some instances, the global response could serve as the initial deployment for what evolves into a Sustained Presence or Sustained/Surge Combat Operation. In terms of concurrency, missions in the Rapid Response mission set are likely to be considered a core task, a minor time-limited deployment or potentially a major time-limited deployment.

Properly equipped and trained light forces are well suited to the Rapid Response mission sets. The Light Forces Master Implementation Directive states that light forces are to be configured for strategic deployment to an area around the globe in less than one week.[16] The asymmetric army can meet Rapid Response missions with purpose-built light forces. A vanguard company, built upon a light infantry company with supporting elements, can be tasked at high readiness, ready to deploy in 72 hours. The remainder of the light infantry battalion can form a light force battalion group (bn gp)[17] prepared to follow on, if required, within one week.

The next mission set, Sustained Presence, involves sustained expeditionary operations in support of international security and stability. Specific missions of this type may require a formed tactical unit for tasks in the face of an adversary force, or may require a bespoke organization to support an ally or partner. The missions involved in Sustained Presence are Building Partner Capacity, Alliance/Coalition Deterrence and traditional Chapter VI Peace Support or peacekeeping operations. This mission set, in terms of concurrency, is likely to equate to a sustained minor or major deployment.

The BPC mission may or may not feature some form of organized threat, depending upon the extent of the Army's role in training, advising, assisting and potentially accompanying friendly forces. This mission will continue to be a critical task for the Army as it competes against adversary sub-threshold activity by leveraging its partnerships and activities to maintain regional understanding and access around the globe. The asymmetric army seeks to optimize readiness for this mission in creating a Security Force Capacity Building (SFCB) battalion.

In line with allied initiatives, the SFCB battalion would be a purpose-built, cross-branch organization designed to train, advise, assist and, if required, accompany partnered forces on operations. This unit would generate deployable force elements built around advising teams and would serve as a centre of excellence for the training and cultural expertise required for these types of missions. Although any unit can, with time, task-tailor itself to meet the BPC mission (as seen with the army's generation of Operational Mentoring and Liaison Teams and training teams for Ukraine and Iraq), a bespoke unit would reduce the requirement for conventionally organized units to shift away from collective warfighting training for BPC tasks. The SFCB battalion could undertake the entirety of a BPC task, could form the core of a BPC task force with other augmentees, or could act as the initial force in for a BPC task, to be followed up by a formed task force from another army unit in subsequent rotations.

The other missions in the Sustained Presence mission set, Alliance/Coalition Deterrence and Chapter VI Peace Support missions, are well understood by the Army. These will often be conducted in the face of a hostile actor and will likely require a tactically organized force. A medium force bn gp or battle group (BG) often provides the optimal balance of mobility, protection and firepower to successfully conduct these missions. In some instances, dictated by the threat or the terrain, a heavy force BG or light force bn gp may be more appropriate. The varied requirements of the Sustained Presence mission set may necessitate re-roling of units between light, medium and heavy posture if concurrency or mission duration becomes an issue, and an adaptive army MRP will enable the asymmetric army to make this achievable.

The final mission set, Sustained/Surge Combat Operations, speaks to the *raison d'être* of any army: to fight and win land battles. This mission set is composed of tasks conducted against hostile forces, requiring all-arms teams integrated into the joint force. These missions are Chapter VII Peace Enforcement Operations, Coalition Counterinsurgency Operations and Conventional Combat Operations. As with the Sustained Presence mission set, geography and adversary threat could demand light, medium, or heavy forces to deploy into Sustained/Surge Combat Operations. In terms of concurrency, a Sustained/Surge Combat Operation could be a major sustained or time-limited deployment.

Sustained/Surge Combat Operations could also call for a surge of forces for a major contingency. This latter mission, although not specially mentioned in *SSE*, is implied both by reference to meeting alliance commitments in response to an Article 5 transgression and by the reality that a combat mission may quickly demand more than *SSE's* concurrency allocation. An example of this is Op ATHENA, which at its height saw more than 3,000 CAF personnel deployed to Afghanistan. A surge operation to meet a major contingency may also force the CAF to reduce its commitment to other operations due to the immediacy of a combat operation.

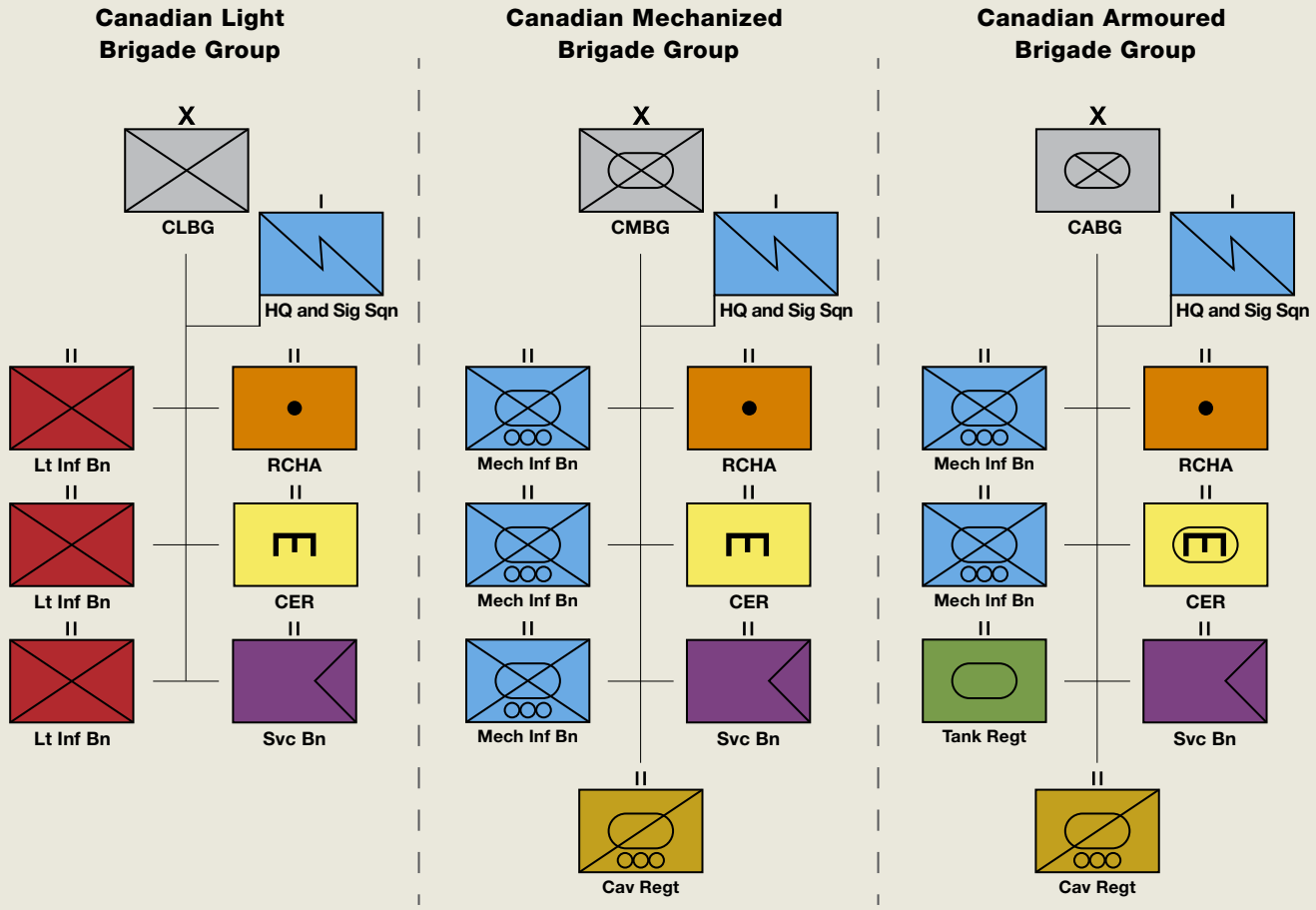

Figure 1: Asymmetric Army Manoeuvre Brigade Types

A surge mission, especially one designed to counter a grave threat to Canada's national interests, could mean that all other concurrent commitments would become secondary in importance.

All of these mission sets, especially the latter two, could require higher-echelon command and control requirements, necessitating the deployment of a brigade group HQ, unique combat support force elements from a Combat Support Brigade and potentially parts of, or all of, a brigade group itself. For static missions, generally those in the Sustained Presence mission set, along with some Chapter VII Peace Enforcement and Coalition Counterinsurgency missions, the type of brigade HQ is largely irrelevant, as formation command and control requirements can be delivered by a light, medium or heavy force brigade group HQ.[18]

For mobile combat operations requiring a full or partial Canadian brigade, the brigade of choice will be determined by the nature of the adversary, the geography and the coalition requirement. In this scenario, with all other commitments becoming secondary, it is conceivable that all or part of a light, medium or heavy brigade could ultimately be deployed for conventional combat operations. The asymmetric army's advantage is that it is structured to organize formation-level light, medium or heavy forces based on the threat (see Figure 1).

A Canadian Light Brigade Group (CLBG) would be similar in design to the U.S. Army Infantry Brigade Combat Team[19] and organized around a manoeuvre force of three light infantry battalions, with light engineering and artillery combat support and a service support unit tailored to light forces sustainment. The CLBG would serve as the formation centre of excellence for unique mobility requirements,[20] could be used in tandem with helicopters for air assault or with allied amphibious operations and could be ideally employed against regular and/or irregular threats in mountainous, jungle or otherwise difficult terrain. Although the CLBG is defined by its lack of armoured vehicles, nothing prohibits augmentation with protected mobility due to mission variables. One capability of light forces, the parachute capability, would require additional study, with an estimate to determine whether it is still required and, if so, to what extent; and how it could be generated and employed by the asymmetric army.[21]

A Medium Force Brigade Group would be similar in organization to the current CMBG, but with a third mechanized infantry battalion replacing the light infantry battalion. Like U.S. Army Stryker Brigade Combat Teams and the new British Army Strike Brigades,[22] a CMBG would continue to provide flexible and adaptable general-purpose forces with integral mobility, firepower and protection. Built around the LAV 6 armoured fighting vehicle and containing medium-force engineer, artillery and sustainment units, the CMBG balances mounted infantry with combined arms support. The armoured regiment in a CMBG, which has been in a constant state of flux for the last 25 years,[23] should be converted to an armoured cavalry regiment, a new unit designed to lead the formation's sense/strike fight. This unit, consisting of armoured reconnaissance squadrons, should be integrated into current Army projects to develop new missile and unmanned aerial system (UAS) capabilities, enabling the development of cutting-edge integration of enemy detection, targeting and strike combined in a single mounted organization.[24]

A Canadian Armoured Brigade Group (CABG) would become the centre of excellence for the Army's heavy forces. In the CABG, two LAV 6–based mechanized infantry battalions would be joined by a tank regiment, an armoured unit with three to four tank squadrons and a combat support squadron, enabling the brigade to form three heavy-force BGs.[25] The CABG would also possess an armoured cavalry regiment to execute the sense/strike fight for the formation. Combat support would come from an engineer regiment employing the army's armoured engineering elements and from an artillery regiment. Combat service support would be delivered by a service battalion tailored to provide heavy-force sustainment.

Given the wide array of missions across the four mission sets, the potential threat posed by regular, irregular and hybrid adversaries, and the wide-ranging geographic areas the army could be called to deploy into, the asymmetric army will be hard pressed to meet all demands in an increasingly competitive international environment. To ensure that it can meet the requirement of concurrency and sustain or adapt its force elements throughout extended mission mandates, we will now consider how it will train to produce and sustain land combat power.

HOW THE ASYMMETRIC ARMY WILL TRAIN: PRODUCING AND SUSTAINING COMBAT POWER

Although the asymmetric army provides an optimum base for a wide spectrum of land combat power options to a joint force employer, its primary mission is to manage a system for generating and sustaining this combat power. The army must ensure that it can provide cohesive force elements to execute today's current missions while also preparing for future concurrency requirements.

The current Army MRP, which emerged from the Army's efforts in Afghanistan, is not fit for purpose. It is a program that evolved from the Afghanistan-focused 18-month cycle to a 36 month cycle for entire brigades.[26] The problems with the current cycle are evident to those who have gone through it.

The current MRP does not synchronize with army career management and posting cycles. At its most fundamental level, readiness is about building cohesive teams, but the current plan moves units and brigades through high-readiness preparation and then posts many key leaders and staff out of the organizations just as they are validated as ready. In addition, the current MRP is intrinsically linked to preparing entire brigades and using the Canadian Manoeuvre Training Centre (CMTC)'s Exercise MAPLE RESOLVE for validation. Not only does this concentration incur a high cost to ready forces,[27] but the scale and scope of the exercise generates a significant task requirement for the other brigades, detracting from CMBG activities unrelated to high-readiness preparation.[28] The asymmetric army, to succeed as a concept, must utilize a revised MRP, one focused on team cohesion. If the army cannot manage cohesion, it cannot manage readiness.

This article proposes a revised MRP, built around a 24-month cycle of Build, Ready, Reset (see Figure 2). This is conceptually similar to what is currently being done, but one key difference is that for the asymmetric army, different parts of each brigade will be in different parts of the cycle. This is necessary to allow for the concurrent generation of light, medium and heavy forces, along with key combat support elements. One obvious result is that additional force-generation measures may be needed if a surge mission requires an entire brigade; however, as discussed above, this contingency is outside the scope of concurrency.

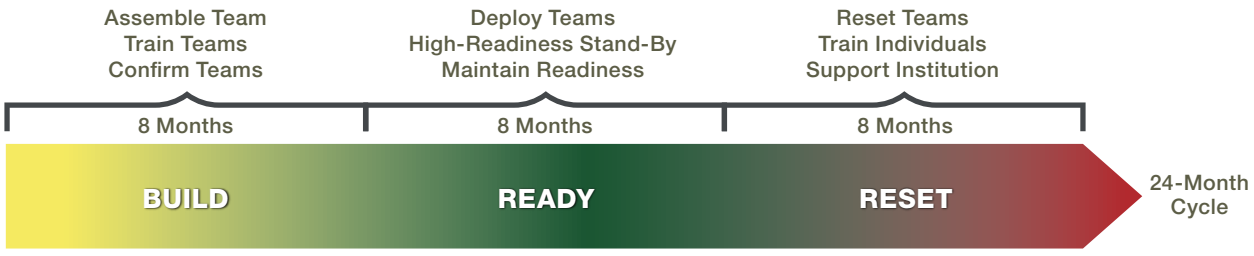

Figure 2: Revised Managed Readiness Plan for the Asymmetric Army

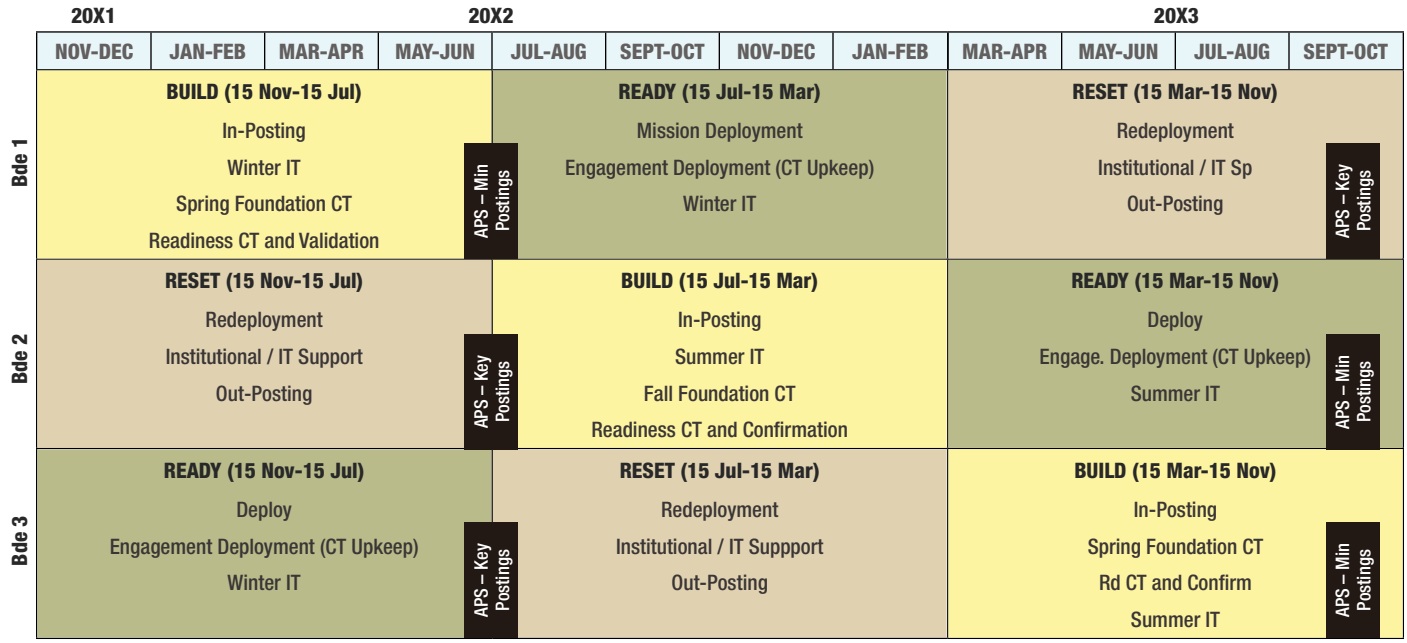

Figure 3: Revised Managed Readiness Plan Synchronized with the Army Annual Training Year Cycle

A key element of this revised MRP is the recognition that, while readiness cycles may define specific tasks, the army has a fairly routine pattern of activity throughout each year. Tempo is never truly "high" or "low" for the field force, but rather a steady ebb and flow of predictable annual activities. The first, and most critical, part of this pattern—and one that must be respected—is the career management cycle and the annual posting season (APS). The APS will not be changed, as summer is the optimal time in Canada for home sales, movement of furniture and effects, and relocation of families. An MRP that does not respect the APS will inevitably be less optimal in building cohesive teams.

Built around the APS is the army's traditional cycle of annual activities, driven by weather, climate and statutory or customary holiday periods, which can be termed the "training year" (as distinct from a fiscal year). When broken down into "blocks" of activity periods, the army's annual training year, following the APS, consists roughly of a fall training period; the winter months for individual training, maintenance, and leave; and a spring/early-summer collective training period leading into the next summer. Summer is generally an ideal time for Army Reserve integration, support to individual training and block leave.

When the proposed 24-month readiness cycle is overlaid on this annual training cycle, it creates the revised three-stage MRP detailed at Figure 3. Essential to this MRP is the notion of key and minimal APS posting periods. Key APS posting periods are for units completing or starting the readiness cycle and are focused on posting in key leaders and staff, while minimal APS posting periods are for units in the midst of the Build or Ready phases. These periods ensure that essential command and staff personnel are, to the extent possible, kept in place through a complete readiness cycle: the team that builds together is ready together and deploys together.

When the force elements of the asymmetric army are layered on this MRP, the operational output cycle for the army is as shown at Figure 4. Based on the asymmetric army structure, and considering the assumptions and limitations set out earlier, the revised MRP provides for a light-force bn gp at seven days' notice to move (with a vanguard company at 72 hours' notice to move), a medium-force bn gp or BG built around a mechanized infantry battalion, and a heavy-force BG built around either a mechanized infantry battalion or the tank regiment. The domestic IRU in each divisional area is always maintained as a secondary task to be managed within the division.

Each of these elements would spend eight months in the ready state and, if called to deploy, could expect an eight-month deployment for expeditionary tasks. If not deployed on a named mission, ready elements could be employed abroad in accordance with global engagement plans to provide the required strategic effects through presence and engagement. This MRP for the asymmetric army also allows for built-in flexibility in the face of a sustained demand for a particular type of force due to terrain, adversary or allied requirements. Units could, if required, be provided with the time, equipment and training to adapt to light-, medium- and heavy-force postures, as was done when light infantry battalions deployed to Afghanistan in LAVs.

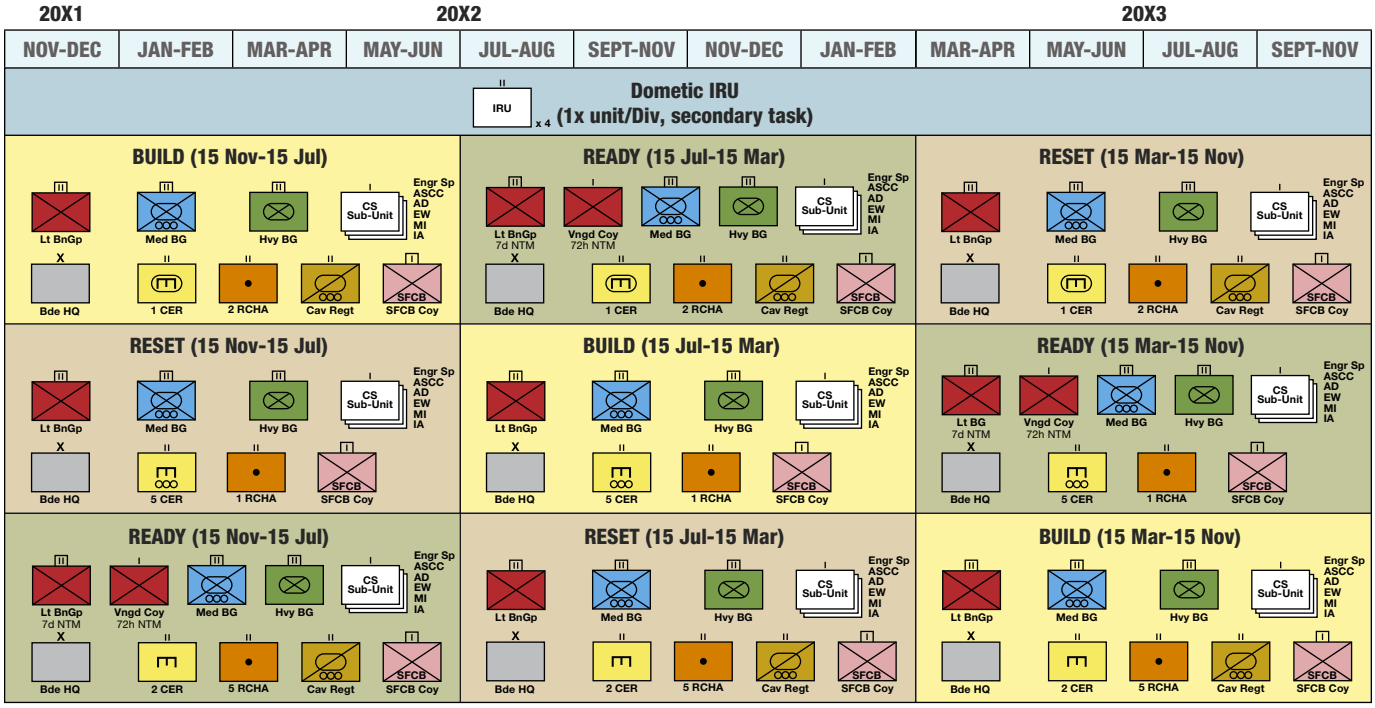

Figure 4: The Asymmetric Army in the Managed Readiness Plan

With the potential for multiple units across the army in the build cycle, the asymmetric army's MRP no longer revolves around a single culminating validation event held by the CMTC at CFB Wainwright in May and June. High-readiness validation is now done during a unit's Build phase and may or may not require movement to CFB Wainwright for execution. In the asymmetric army, readiness is focused on the unit level, and CMTC can support the revised MRP by providing Level 4 through 6 validation packages, tailored to a light/medium/heavy force, in any training area.

Although the focus of the asymmetric army's MRP is unit readiness, brigade HQs still must be trained as tactical HQs and must be prepared to assume static, sustained tasks or to surge for mobile combat operations. The asymmetric army will not move entire brigades through the readiness cycle at once, but will move each brigade group HQ through the cycle to ensure that, at any time, one of them is always prepared to deploy. Validation can be done by means of one or a series of command-post or computer-assisted exercises, either within Canada or while working with allies.[29] Should the need arise to surge and deploy the better part of a specific brigade for combat operations in major contingency, other concurrency requirements may be suspended and the MRP can be "paused" while all units are quickly brought up to the level required to deploy for such a contingency.

The other elements of each brigade, namely its armoured cavalry, engineer, artillery and combat service support units, will also move their HQs and sub-units through the MRP, and the HQs can add depth to the MRP by providing HQs and force elements for certain sustained presence operations. They must also be prepared to attach sub-units to manoeuvre forces in different phases of the MRP to form bn gps or BGs if required.[30] The engineer support, air defence, electronic warfare, military intelligence and influence activities units of the combat support brigade will generate unique force elements in conjunction with an affiliated brigade group HQ, ensuring that these HQs have higher-level enablers prepared to deploy with them. Lastly, the SFCB battalion will consistently force generate an SFCB company, ensuring that the asymmetric army has, at all times, an organization prepared to take the lead in deploying to build partner capacity.

As a whole, the asymmetric army and its revised MRP will assure the joint force of a wide array of forces for operations. These can be broken down into six lines of effort (LOE) which, at all times, provide for the following:

LOE 1 – Domestic IRU: At a minimum, one domestic response unit in each divisional area ready to meet Domestic Response tasks.

LOE 2 – Light Force: Provided by a CLBG, one light-force bn gp at high readiness (seven days' notice to move), with a rotating vanguard company at 72 hours' notice to move. This light force can meet the rapid response tasks, can provide the vanguard for sustained/surge tasks or, due to mission requirements, may be required to fulfill sustain presence or sustained/surge combat operations.[31]

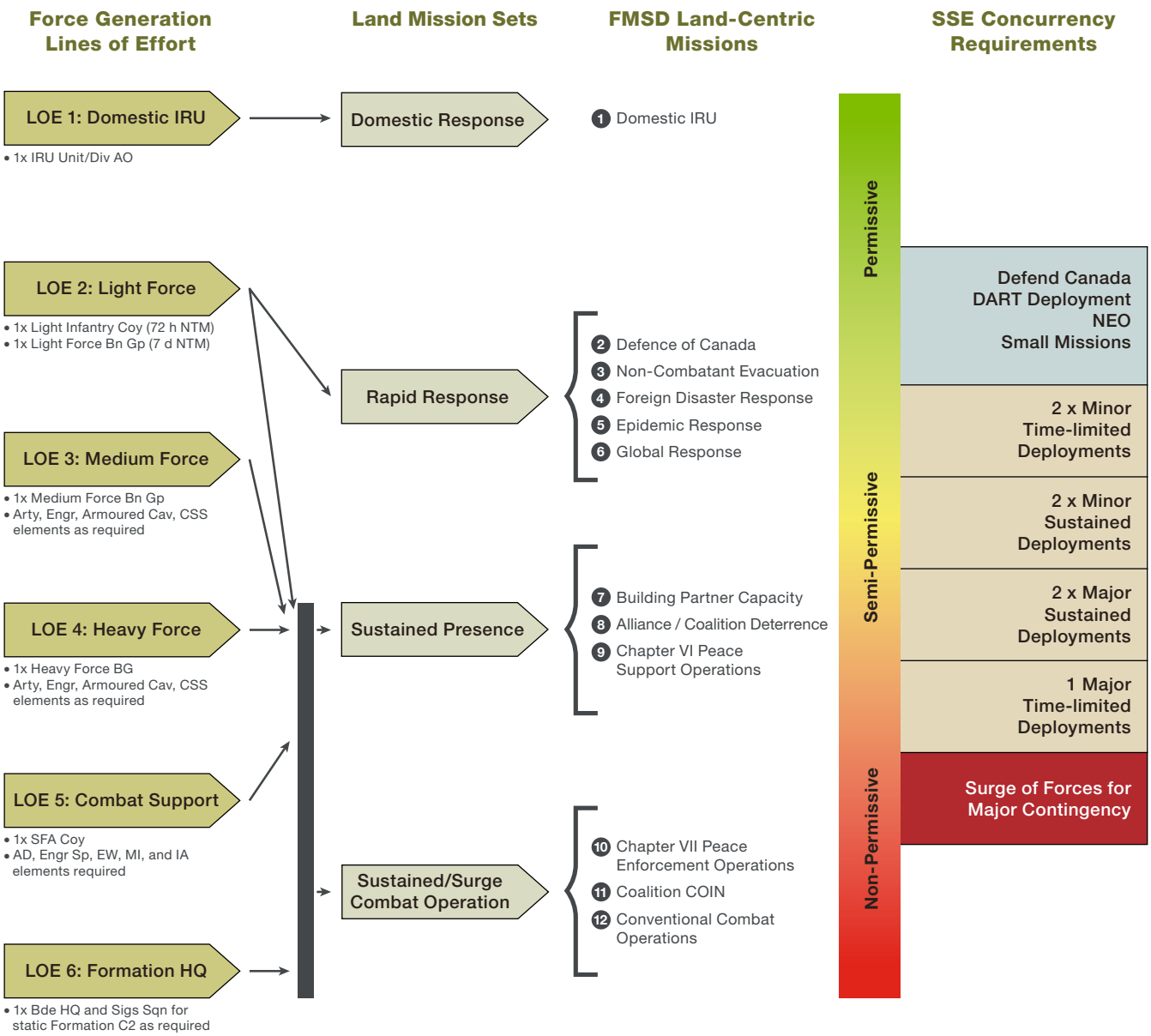

Figure 5: Force Generation Lines of Effort of the Asymmetric Army

LOE 3 – Medium Force: Provided by a CMBG, one LAV 6–based medium-force bn gp/BG and combat support elements, to fulfill sustained presence or sustained/surge combat operations.

LOE 4 – Heavy Force: Provided by a CABG, one tank/infantry heavy-force BG and combat support elements, to fulfill sustained presence or sustained/surge combat operations.

LOE 5 – Combat Support: Managed by the Combat Support Brigade, with an SFCB company prepared to act as the lead for building partner capacity missions, together with specialized sub-units from the remainder of the brigade's units.

LOE 6 – Formation HQ: A rotation of each brigade group HQ to provide formation command and control to alliance/coalition efforts for most missions.

As seen in Figure 5, the asymmetric army and its revised MRP provide a force that optimizes, in terms of efficiency and proficiency, the production of light, medium and heavy forces ready to operate against the widest array of adversaries in any type of theatre. It synchronizes Army force-generation activities to provide the optimal environment for building cohesive teams. Lastly, the LOEs enable the Army to meet the demands of concurrency, sustain varied forces abroad and surge for any major contingency abroad.

HOW THE ASYMMETRIC ARMY WILL LIVE: FORCE LAYDOWN IN CANADA

Following on from the above description of how the asymmetric army fights and generates combat power, the structure of the force can now be explained: form follows function. The proposed asymmetric army, based upon the relevant limitations, assumptions and operational requirements, is diagrammed at Figure 6. It is organized with four brigades. In the West, 1 CMBG is assigned all of the Army's heavy resources and becomes 1 CABG, built around two mechanized infantry battalions, a tank regiment, an armoured cavalry regiment, and artillery, engineer and service support units tailored to support the heavy force. Conversely, 2 CMBG transforms into 2 CLBG, built around three light infantry battalions, a light engineering regiment, an artillery regiment and a service battalion. 5 CMBG remains a medium-force brigade, but with three LAV 6–equipped mechanized infantry battalions rather than two. Lastly, the Combat Support Brigade generates forces for specialist artillery, engineer, electronic warfare and influence activities, as well as intelligence force elements. It also includes a security force capacity building (SFCB) battalion formed from the Atlantic Canada–based mechanized infantry battalion.

To transform our current symmetric force into the asymmetric force proposed in this article, some changes to the Army must occur. First, some existing units would have to be converted. The Royal Canadian Armoured Corps would need to reallocate all tanks to the tank regiment in Edmonton and restructure its other two regiments into armoured cavalry regiments capable of fighting the sense/strike battle. The combat engineer regiment and service battalion in Edmonton would similarly see concentration of armoured support vehicles as 1 CMBG transforms into 1 CABG.

Similarly, 2 CMBG would transform into 2 CLBG, and CFB Petawawa would become the home for the army's light forces. The engineer, artillery and combat service support units in Petawawa would undergo an internal transition to light structures to support the light infantry battalions within the brigade. Lastly, the mechanized infantry battalion at CFB Gagetown would undergo a significant transformation into an SFCB under the command of the combat support brigade.

There would also be a requirement to relocate units, which could mean physically moving units and their personnel, re-designating units in specific locations, or a combination of both. The 5 CMBG would see some conversion as it exchanges a light infantry battalion for a mechanized infantry battalion to become a fully mechanized formation. Table 3 shows unit movement and re-roling requirements for the proposed army structure.

Although this unit movement and re-roling would undoubtedly create some turbulence in the Army over the years required to conduct the unit moves and transformations, it is not an insurmountable task: Canada's closest allies and partners, including the US, the UK and Australia, have all gone through significant force structure reforms in the last decade to adapt their armies to meet new challenges.[34]

Two issues with the proposal must be considered. The first is the regimental equities of the Infantry and Armoured Corps. Although "cap badge politics" must not trump operational concerns, cultural and institutional factors tied to the regimental system cannot be ignored, lest unforeseen friction affect any proposal for change. The solution for cap badge distribution is beyond the scope of this article but, needless to say, multiple options exist, including mixed-badge regiments and the rebadging of existing units to other regimental affiliations. The options could be investigated as part of a deeper study on implementing the asymmetric army.[35]

The second issue is linguistic equity: the Army must ensure equal opportunity to serve in both of Canada's official languages. The asymmetric army would maintain the French-language formation, 5 CMBG, and there are a variety of options, some of which have been employed in the past, to give Francophones the opportunity to serve in light- or heavy-force units. Implementing the asymmetric army would require each corps and branch to examine the linguistic aspects and challenges of an asymmetric force structure and make recommendations to ensure equitable service opportunities for English- and French-speaking soldiers.

PART IV: ANALYZING THE ASYMMETRIC ARMY

Accepting transition to an asymmetric army requires understanding the advantages and disadvantages of changing the Army's force structure, which is more than 25 years old. It is also evident that adopting the asymmetric army could have a significant effect on the Army Reserve and the institutional support elements of the Army, as their form would also likely need to follow the Army's operational function.

As stated above, one of the limitations of this proposal is the lack of a detailed analysis of the structure of the Army Reserve. If the proposal is adopted, a follow-up estimate of the Army Reserve within the asymmetric army must be conducted. The estimate would need to consider numerous issues related to reserve formation structure, reserve force element allocation and corps/branch distribution across Canada, as well as how the Army would integrate the Army Reserve into the MRP. This would be a significant endeavour that could offer an important opportunity to amend a Reserve structure that is perhaps just as outdated as the symmetric Army Regular Force structure which this article proposes should be replaced.

LOCATION	GAIN (ARRIVING/RE-ROLED UNIT)	LOSS (DEPARTING/ RE-ROLED UNIT)
CFB Edmonton	1× mechanized infantry battalion 1× tank regiment	1× light infantry battalion 1× armoured regiment
CFB Shilo	1× armoured cavalry regiment[32]	1× mechanized infantry battalion
CFB Petawawa	2× light infantry battalion	1× mechanized infantry battalion 1× armoured regiment
CFB Kingston		1× combat support brigade HQ[33]
CFB Valcartier	1× mechanized infantry battalion 1× armoured cavalry regiment	1× light infantry battalion 1× armoured regiment
CFB Gagetown	1× SFCB battalion 1× combat support brigade HQ	1× mechanized infantry battalion

Table 3: Asymmetric Army Unit Relocation Requirements

The role of the Army Reserve is one of the many considerations that arises in any analysis of the asymmetric army proposal. To identify the advantages and disadvantages of potentially adopting such a proposal, the SWOT methodology of strengths, weaknesses, opportunities and threats was used to analyze what makes the asymmetric army a better model than the current symmetric force.[36]

In terms of strengths, the asymmetric army provides increased operational efficiency and proficiency through the centralization of light-, medium- and heavy-force capability into unique brigade groups, creating centres of excellence for manoeuvre, combat support and combat service support. It also provides optimized and flexible operational outputs to meet a wide array of adversaries and to operate within any theatre or environment with minimal adaptation. There is a "kitchen cupboard" approach that the symmetric army's medium-force focus is not organized to provide.

An additional strength of the asymmetric army is that combat service support is optimized through functional concentration of resources and personnel within each brigade, with each service battalion focused on light-, medium- or heavy-force sustainment. This advantage also benefits the enablers of the Combat Support Brigade, which can be postured to support specific manoeuvre forces. Lastly, the asymmetric army's force laydown makes the most of Canada's geographic realities, with the heavy force located close to the wide-open manoeuvre areas of CFB Wainwright and CFB Suffield and the light forces co-located with high-readiness special operations forces units (where potential high-readiness synergies exist) and close to the strategic airhead of CFB Trenton.

In terms of weaknesses, the asymmetric army would require a readjustment to a new MRP with 8-month rotations. This is not difficult, and it has been done before, but the potential for friction exists, especially when combined with the requirement to move units and personnel as well. Additionally, if the asymmetric army must generate specific force types such as light or heavy forces for an extended period of time, it could require re-roling of units to avoid overtasking any specific brigade. This re-roling, although not insurmountable, could lead to increased time and costs for high-readiness training.

Another weakness is that the asymmetric army does not address the present issue of formation-level combat support sub-unit/unit dislocation from the manoeuvre brigades, making training and integration costly and challenging, especially for the Western Canadian brigade. Lastly, the asymmetric army could create a decreased breadth of experience, along with new career management challenges, as brigades and the soldiers within them become narrowly focused on specific light/medium/heavy force postures.

This survey of strengths and weaknesses reveals many opportunities in the proposal. First, the ability to reshape the MRP, focusing on genuine unit cohesion and key leadership and staff appointments, could tremendously improve the army's force-generation process and prevent the turbulence the APS imposes on our current system. As well, the revised MRP's LOEs orient specific units to specific tasks, creating the opportunity for more focused preparation and predictability in task requirements for units in high readiness.

Source: Combat Camera

Source: Combat Camera

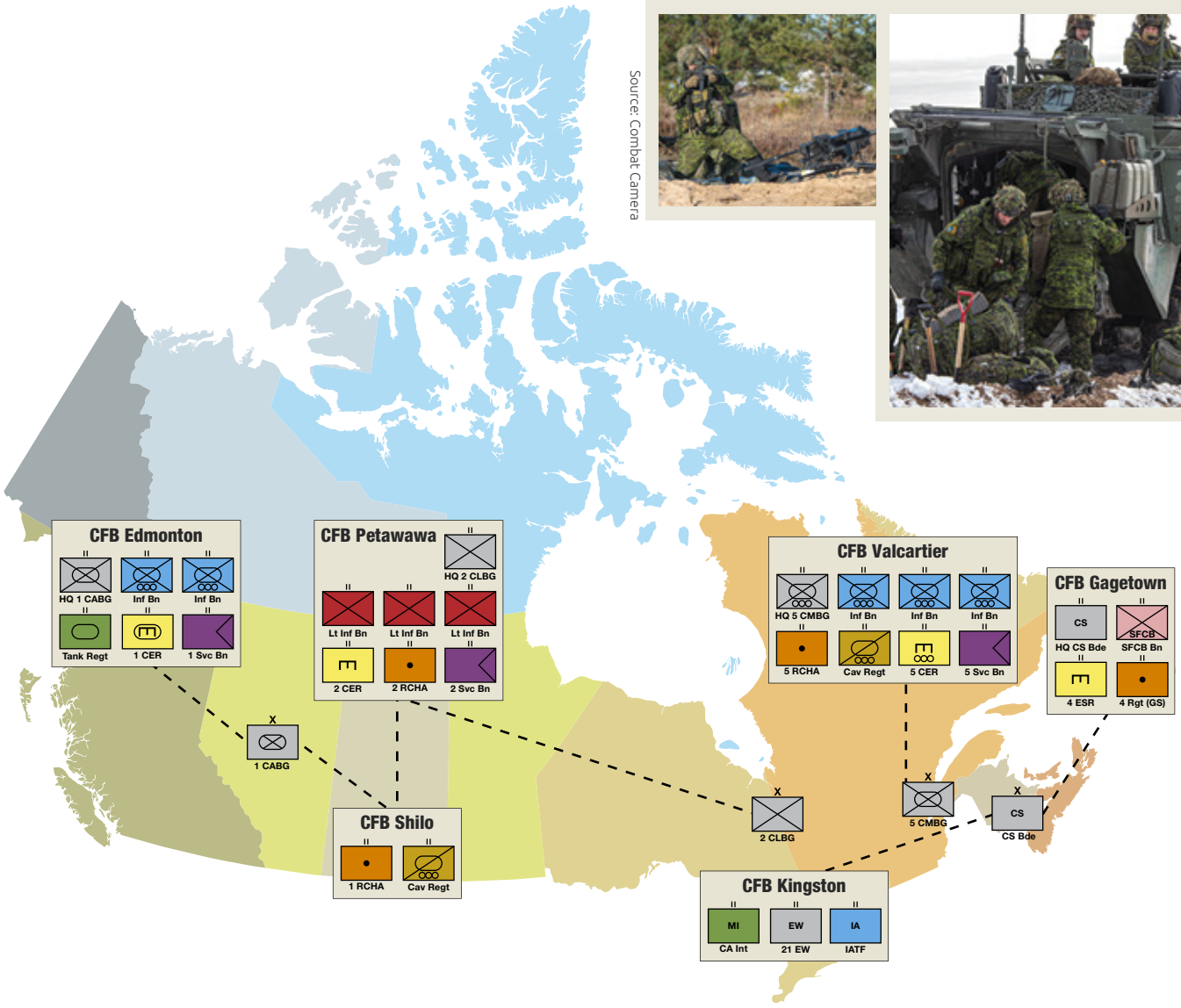

Figure 6: The Asymmetric Army

Opportunity could also be found by reviewing the Army's regimental affiliation for infantry and armoured units and giving consideration to mixing affiliation within brigades. This would create more cross-pollination within the Army by mixing regimental representation in each brigade, as was done prior to 1993. Another opportunity would be to extend the changes to the field force to rebalance the institutional sustainment of the Army. Concentrating resources to support light, medium or heavy forces could be beneficial to the Canadian Division Supply Groups (CDSG) and the supply system. A final opportunity would be to use the impetus of changing to an asymmetric army to make meaningful improvements to the Army Reserve, which could include a refinement of mission tasks, to better enable augmentation and integration of Primary Reserve members into the MRP.

Adjusting the Army Reserve mission tasks is, conversely, one of the threats that could undermine the asymmetric army, as the Strengthening the Army Reserve (StAR) initiative has assigned mission tasks, and changing them after so short a time could cause friction and waste newly acquired training and skills. Other possible threats to the asymmetric army are the significant costs associated with re-scoping infrastructure to support light and heavy brigades and with moving units and personnel around Canada. Other potential threats arise from the need to address regimental equities, which was discussed earlier, and to address the linguistic demands on the Army.

This SWOT analysis indicates that, despite the weaknesses and threats, there are significant advantages to the Army's operational output that strengthen its value to the joint

Source: Combat Camera

force that was proposed earlier: the provision of scalable land power to deter and, if required, defeat adversary actions. By focusing on function and letting form follow, the asymmetric army can have real potential to improve Army force-generation efforts.

PART V: CONCLUSION

If adopted, the asymmetric army proposed in this article would require a three- to five-year phased implementation plan. Thus, it fits into the *Force 2025* envelope. The first year or two would require unit organizations to be refined, tested and validated, with necessary person-year reallocations and doctrine updates being implemented. During this time, review of regimental affiliations and the Army Reserve estimate for its structure could be conducted. By Year 3, unit movement would begin and unit re-designation and reassignment would occur, so that by APS of Year 5 the asymmetric army would be established and operating under the revised MRP.

Why would the Army undertake such reform and risk the friction of reorganization while in the midst of sustaining numerous operations abroad? Hard choices must be made, due to the three operational imperatives described at the beginning of this article. *Force 2025* envisions an army structured to sustainably generate sufficient, scalable and ready forces for dispersed and concurrent missions. The operational demand of both *SSE* and the current strategic environment characterized by peer-state competition and irregular adversaries requires the army to maximize proficiency for all anticipated mission sets. The creation of brigade-focused centres of excellence for heavy, medium and light forces will give the Army a more diverse, proficient and sustainable force-generation base to meet these challenges.

The full implementation of light forces will give the asymmetric army a true increase in strategic and operational responsiveness on the part of forces optimized to move via any means and to operate in mobility-restricted environments. Once the Army's has concentrated its light forces and provided them with appropriate tasks and resources, it will finally, after decades, see the full development of "purpose-built, scalable and agile light forces."

Concentrating the Army into brigade-focused light, medium and heavy forces will also maximize the efficiency of the Army's modest resource base. Vehicles and equipment are concentrated in a logical fashion, and the sustainment capability to maintain it all is rationalized to ensure optimal levels of support. The army's combat support brigade is able to better specialize its sub-units to support specific light/medium/heavy force units. By avoiding penny-packeting of "low-density, high-demand" resources, the asymmetric army better makes use of what it has in terms of people, equipment and resources.

Lastly, the asymmetric army enables a superior MRP, focused on producing and managing cohesive force elements. When units are able to focus on specific mission sets and key leadership and staff can remain in place throughout an entire readiness cycle, valuable collective training during the road to high readiness is not wasted by misalignment with institutional realities such as APS. The asymmetric army will simply produce better teams for the Ready Phase of the new MRP.

The asymmetric army will change how the army lives, trains and fights. Adopting such a proposal will demand a commitment of resources and effort by the entire Army. In the past decade, our principal allies and partners have all made similar decisions to update their force structures,

and the Canadian Army should not shy away from making the hard choices to improve its operational output by adjusting its base. The current symmetrical force structure is not fit for purpose, and change is required for the Army to best provide scalable land power to the joint force to deter, contest, confront and, if required, defeat adversary actions, thereby improving the CAF's ability to conduct its core tasks in the defence of Canada.

ABOUT THE AUTHOR

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ENDNOTES

1. See National Defence, *Strong, Secure, Engaged: Canada's Defence Policy* (Ottawa: Government of Canada, 2017), 18 (hereinafter, *SSE*). The eight missions are to (1) Detect, deter and defend against threats to or attacks on Canada; (2) Detect, deter and defend against threats to or attacks on North America in partnership with the United States, including through NORAD; (3) Lead and/or contribute forces to NATO and coalition efforts to deter and defeat adversaries, including terrorists, to support global stability; (4) Lead and/or contribute to international peace operations and stabilization missions with the United Nations, NATO and other multilateral partners; (5) Engage in capacity building to support the security of other nations and their ability to contribute to security abroad; (6) Provide assistance to civil authorities and law enforcement, including counter-terrorism, in support of national security and the security of Canadians abroad; (7) Provide assistance to civil authorities and nongovernmental partners in responding to international and domestic disasters or major emergencies; and (8) Conduct search and rescue operations. In some of these missions, the Army will provide the preponderance of force elements, while in others the Army could have a minimal, supporting role.

2. Commander Canadian Army, *Advancing with Purpose: The Army Strategy*, 3rd edition (Ottawa: Government of Canada, 2014). Designed to meet the Government's *Canada First Defence Strategy* of 2008 (which was superseded by *SSE*), *Advancing with Purpose*, 3rd edition, was intended to provide an output of four lines of operation based on specific missions, while *SSE* could potentially demand much more, with concurrency in the core tasks and the seven expeditionary missions tasked to the CAF.

3. 1901-1 (DLFD SI-2) *Force 2025 – Commander's Planning Guidance* (10 September 2020).

4. Light, medium and heavy manoeuvre forces are defined in Canada's capstone doctrine, B-GL-301-001/FP-001, *Land Operations*, 1-5. Heavy forces are those that deploy with armoured fighting vehicles and fight either from their vehicles or with their vehicles in direct, intimate support. Medium forces are strategically and operationally more deployable than heavy forces and have less firepower and protection than heavy forces. Light forces are defined as military forces rapidly deployable at all levels of command and optimized for terrain and conditions not suited to mechanized forces. They have significant strategic mobility, as they can be transported to any theatre by aircraft. However, their firepower is limited compared to heavy or medium forces, and they are vulnerable without the protection of dispersion, concealment or fortification.

5. Government of Canada, *SSE*, 49.

6. "Grey zone conflict" is a term describing inter-group competition that falls below a defined threshold of armed conflict. Although he never termed it "grey zone," the concept is commonly attributed to Russian Army Commander Valery Gerasimov, who defined it as "a tendency toward blurring the lines between the states of war and peace. Wars are no longer declared and, having begun, proceed according to an unfamiliar template." See Valery Gerasimov, "The Value of Science is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations" (Tr. Robert Coalson) in *Military Review*, Vol. 96, No. 1 (Jan–Feb 2016), 23–29. This was originally published in Russia in 2013, and

Source: Combat Camera

argues that the United States frequently employs such approaches to prevail in conflict. In light of recent actions by Russia and China, the idea has emerged that they are now the leading employers of grey zone conflict and that the West must pace itself to stay competitive. This idea makes its way into *SSE*. For a good summary of grey zone conflict, including its theoretical weaknesses, see Frank G. Hoffman, "Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges" in *Prism*, Vol. 7, No. 4 (2018), 31–47.

7. Government of Canada, *SSE*, 49

8. Government of Canada, *SSE*, 36.

9. Canadian Army Land Warfare Centre (2019), *Close Engagement: Land Power in an Age of Uncertainty – Evolving Adaptive Dispersed Operations* (Kingston, ON: Army Publishing Office, 2019), 12–13.

10. Commander Canadian Army, *Advancing with Purpose*, 3rd edition, 12.

11. Author's observations at a DLFD Force 2021 working group meeting held in November 2018.

12. The modern Canadian Army came about in the early 1950s as a response to Canada's involvement in Korea and the Cold War. When Cold War expansion settled, the army consisted of three infantry brigade groups in Canada and one infantry brigade (which would be mechanized in the early 1960s) in Germany as part of Canada's commitment to NATO. Although nomenclature changed, with the renaming of the brigades to "Combat Groups" (except for 4 CMBG in Germany) in 1966, and "Canadian Brigade Groups" in 1976, the structure remained fairly similar throughout the Cold War. The 1976 changes also saw 2 Combat Group transformed into the Special Service Force (SSF). In 1993–1995, the Canadian Airborne Regiment was disbanded, the SSF was restructured into 2 CMBG, and 4 CMBG was removed from the order of battle, creating the symmetric army of three CMBGs. For histories of Canada's brigades, see W. A. West, *Army of the West* (Calgary: 1 CBG HQ, 1989), 135; and Sean M. Maloney, *War Without Battles: Canada's NATO Brigade in Germany, 1951–1993* (Toronto: McGraw-Hill Ryerson, 1997), 20–23, 73–74, 239, 484–486.

13. 1901-1 (DLFD SI-5), *Master Implementation Directive – Light Forces* (26 September 2017), 5.

14. Derived from an FMSD Joint Scenario Package briefing deck, dated 14 May 2019, which was designed to support force structure readiness assessment modelling.

15. This is generally one IRU per Army Division, but 3rd Canadian Division will at times stand up a West and an East IRU to cover its geographically large AO.

16. See *Master Implementation Directive – Light Forces*, 2.

17. For the definition of a battalion group (bn gp) see B-GL-321-005/FP-001, *Battle Group in Operations*, 2–3: a bn gp is described as "an ad hoc and temporarily combined arms grouping based on a unit HQ; it is task-tailored for specific tasks/activities within the FSO. They typically include CS and CSS elements."

18. This was certainly the allied experience in Afghanistan, where British and American formation HQs deployed to manage counterinsurgency operations which were drawn from a mix of light, medium or heavy brigades. The UK's 16 Air Assault Brigade was replaced first by the Royal Marine 3 Commando Brigade and subsequently by 12th Mechanized Brigade. See Anthony King, "Understanding the Helmand Campaign: British Military Operations in Afghanistan" in *International Affairs*, Vol. 86, No. 2 (2010), 317–318.

19. See the U.S. Army's 2015 version of *FM 3-96 Brigade Combat Team*, 1-1 for a description of an IBCT.

20. 1901-1 (DLFD SI-5) *Master Implementation Directive – Light Forces* (26 September 2017), 2.

21. The parachute capability, and specifically the mass insertion of conventional soldiers, can be both emotive and debatable. On the one hand, the French success in employing parachute insertion in Mali for Op SERVAL is an indication of continuing utility; see Michael Shurkin, *France's War in Mali: Lessons for an Expeditionary Army* (Santa Monica, CA: RAND Corporation, 2014). For a more critical look at the parachute capability, see the analysis by Marc R. Devore, *When Failure Thrives: Institutions and the Evolution of Postwar Airborne Forces* (Fort Leavenworth, KS: The Army Press, 2015). These examples indicate that a full estimate would be useful: if maintaining the capability is found to be useful due to operational requirements, then it should be properly resourced.

22. See the U.S. Army's 2015 version of *FM 3-96 Brigade Combat Team*, 1–6, for a description of an SBCT. A good review of the UK Strike Brigade can be found at Jack Watling and Justin Bronk, *Strike: From Concept to Force* (London: Royal United Services Institute, 2019).

23. The role and structure of the Royal Canadian Armoured Corps (RCAC) has long been debated within the Canadian Army, and the issue is largely one of fighting vehicles available to the RCAC and the degree to which platforms drive doctrine and structure and vice versa. Some recent examples of this discussion can be found at Philip J. Halton, "The Re-Transformation of the Armoured Corps" in *The Canadian Army Journal*, Vol. 17, No. 3 (2017), 64–81, and Mathew McInnes, "First Principles and the Generation of Armoured Fighting Power" in *The Canadian Army Journal*, Vol. 17, No. 3 (2017), 92–113.

24. The armoured regiments today largely produce armoured reconnaissance squadrons. Aside from the questionable requirement for six to seven of these squadrons for the Army, they are limited to reconnaissance and screen tasks. The armoured cavalry organization proposed in this paper, provided with a mix of reconnaissance, guided missile and (possibly armed) UAVs, would be capable of fighting a sense/strike battle independently or in front or to the flank of a brigade. It could also conduct the full range of security tasks—screen, guard, and cover—listed at B-GL-301-001/FP-001, *Land Operations*, 7–110. One similar concept for the U.S. Army that has been discussed over the years is Col (Ret'd) Douglas MacGregor's Reconnaissance Strike Group; see http://douglasmacgregor.com/rsggeneralpublic.pdf.

25. The Canadian Army's doctrine has long prescribed large squadrons of 4 troops and 19 tanks. There are certainly advantages to this organization, but other structures exist and have been proven in combat. It might be advantageous to go with four smaller squadrons (perhaps with three troops, or with a three-tank troop) in the tank regiment to enable the generation of more manoeuvre sub-units for the brigade.

26. The Army's last significant reorientation (as there was no real reorganization) came following the end of the combat mission in Afghanistan. See 3000-1 (Army G35) *Army Reorientation Plan* (23 February 2011). This document instituted the four Lines of Operation described in *Advancing with Purpose*, 3rd edition, and detailed a 24-month MRP at Annex B, Appendix 5, but the Army implemented 18-month and later 36-month cycles, with each brigade spending 6, and later 12, months in each phase of high-readiness preparation, high readiness/deployment, and re-constitution.

27. The 2018/2019 Army Operating Plan allocated a total of $20.1 million dollars for Exercise MAPLE RESOLVE, with $12.7 million of it being spent on movement of vehicles, equipment and personnel from the Primary Training Audience at 2 Canadian Division in Quebec. To put those costs in perspective, a yearly annual CMBG operating budget is typically $10 million to $13 million.

28. According to the Canadian Forces Task Plans and Operations (CFTPO), the 2019 serial of Exercise MAPLE RESOLVE had a task requirement for 4,693 personnel. Of this, 3,042 tasks were for the Primary Training Audience, while the other 1,651 tasks were in support. This should be measured against the output. The question should be asked: Can the army achieve equal or superior results through other ways of conducting readiness validation exercises?

29. These are the Warfighter serials conducted with the U.S. Army and the Large-Scale Exercise (LSE) iterations with the U.S. Marine Corps.

30. The combat support units of a brigade—the Combat Engineer and Artillery regiments—were for a time primarily viewed as force generators for sub-units to attach to a manoeuvre BG, and the previous Army strategy and MRP based force generation on that type of all-arms BG. This should not be assumed as the norm, as it is equally necessary to consider force generation for complete Combat Engineer and/or Artillery regiments, either for employment within a formation or to deploy as an HQ for a specific task such as BPC or peace support operations.

31. May require alteration of medium- or heavy-force battalions if demand for light forces is high.

32. The movement of an armoured cavalry unit into Shilo and a mechanized infantry battalion out appears to be an extra move. This is proposed deliberately, as the co-location of 1 CABG's armoured cavalry regiment and artillery regiment will foster close training between the two units most heavily involved in the brigade's sense/strike battle.

33. Moving the Combat Support Brigade from Kingston to Gagetown puts a brigade HQ in Atlantic Canada and co-locates this brigade with the majority of its units, easing command and control issues.

34. The U.S. Army possessed a mix of light and heavy forces throughout the Cold War, but they were focused at the division level. The Transformation initiative of 2006 has since refocused on the brigade level and created a mix of light, medium and heavy brigades. The British Army's 2020 initiative, started in 2012, dramatically reshaped the British Army into a light and heavy reaction force and a medium adaptive force. Refinements since inception have added the strike brigade and the specialized infantry group for BPC tasks. In the opposite vein, the Australian Army's Plan Beersheba, announced in 2011, moved that force from three asymmetric brigades to three multi-role combat brigades, which are essentially mixed forces similar to our CMBGs. What is important is that none of the three major Five Eyes partners have shied away from making significant changes to force structure.

35. Adding regiments to the Regular Force order of battle by rebadging and/or amalgamating existing units is not uncommon, and both the British and the Australians have done so recently with their regimental systems. In the case of the asymmetric army, the infantry could reorganize into four Regular Force regiments (two English, one French, and one bilingual) of two battalions each, along with a new, unique identifier for the SFCB battalion. The options are out there, and regimental form must adapt to operational function.

36. This SWOT analysis was conducted at a November 2018 Army working group that looked at options for Force 2021. Thus, the analysis is not solely attributable to the author.

CHANGE & TRANSFORMATION
During Operations

Brigadier-General N. D. (Nic) Stanton, OMM, MSM, CD

As we in the Canadian Armed Forces (CAF) and the Canadian Army analyze and ponder "how we fight" and look to develop our future capabilities and doctrine, it is important to understand our operational experience and trends for the development of capabilities, now and into the future. With this in mind, and to share recent operational experience that provides a view of emerging operational capability, this article depicts how a unique Canadian-led organization changed/evolved and developed new capability while in an operational environment in order to react to—and enhance support to—ongoing military operations, including an anticipated campaign phase transition. This article is based on the author's personal experience and observations during the period of February to July 2019 while deployed with the Combined Joint Task Force – Operation INHERENT RESOLVE (CJTF-OIR) and on open source material. Due to the operational nature of CJTF-OIR, only a general overview of the change and organizational capabilities is provided. During this deployment period the organization referred to as the Islamic State of Iraq and the Levant (ISIL), also known as ISIS, was renamed as Daesh and is herein referred to as such.

This article provides an overview of the CJTF-OIR mission and the Canadian participation in it, then examines the organization, the change drivers and the process by which transformation occurred. It goes on to provide an overview of, and a perspective on, the unique organization that emerged, with new and enhanced capabilities to support CJTF-OIR and the coalition as a whole.

BACKGROUND: OPERATION INHERENT RESOLVE AND CANADIAN PARTICIPATION

In 2014, the United States Department of Defense established CJTF-OIR in order to formalize ongoing military actions against the rising threat posed by Daesh in Iraq and Syria. Fuelled by sectarian conflicts and division, Daesh ascended from relative obscurity in 2013 to propagate an extremist socio-political ideology and claimed to have created an Islamic caliphate. Its successful acquisition of conventional weapons, establishment of armed formations, rapid territorial growth and unconscionable atrocities shocked the world and destabilized the region. By June 2014, the security situation in Iraq had deteriorated, with the Iraqi cities of Mosul and Tikrit falling in rapid succession to ISIS aggressors.[1]

The CJTF-OIR's stated mission was as follows: "in conjunction with partner forces CJTF-OIR defeats ISIS (Daesh) in designated areas of Iraq and Syria and sets conditions for follow-on operations to increase regional stability."[2] The conduct and execution of this mission are detailed in the campaign design, aligned in three lines of effort, as shown in Figure 1 below:

As part of Canada’s Whole of Government approach to the operation, the CAF joined and supported the CJTF-OIR Global Coalition in order to degrade and ultimately defeat Daesh in Iraq and Syria. The CAF mission complemented the work of other Canadian government agencies such as Global Affairs Canada and the Royal Canadian Mounted Police in building the military capabilities of Iraq, Jordan and Lebanon and establishing the conditions for their long-term success, and particularly the work that is the focus of this article: assisting with the efforts to help Iraq to achieve long-term success in keeping its territory and people secure.[4]

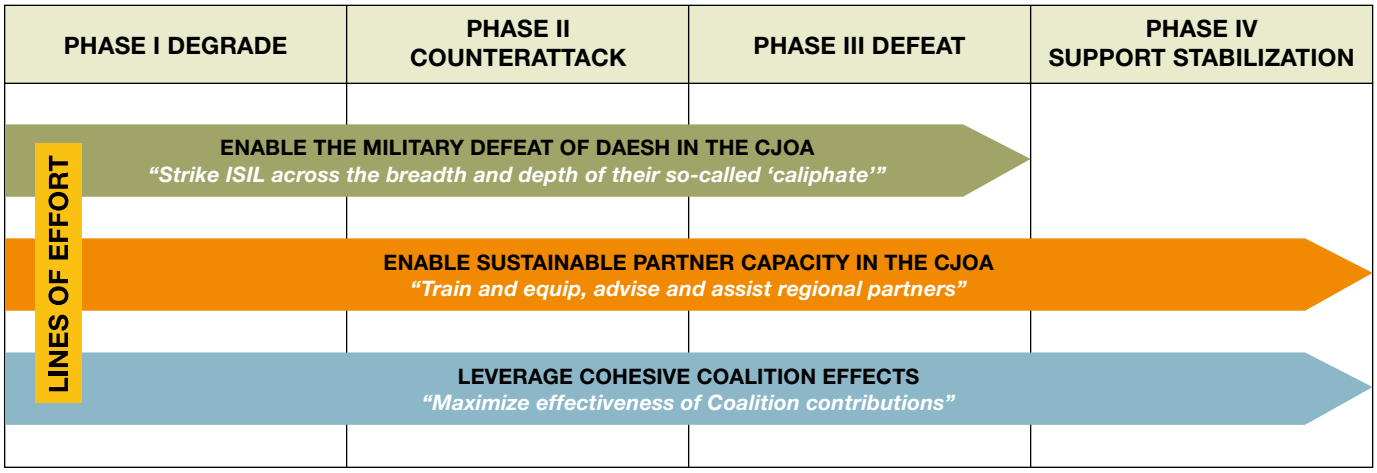

Figure 1: Combined Joint Task Force Operation INHERENT RESOLVE campaign design[3]

THE MINISTERIAL LIAISON TEAM

In 2016 the Chief of the Defence Staff, General Jonathan Vance, announced the creation and Canadian sponsorship of the Global Coalition's Ministerial Liaison Team (MLT), which, as part of CJTF-OIR, would provide strategic military support to the government of Iraq. The team of strategic military personnel would liaise with Iraq's ministries of Defence and the Interior to further synchronize Coalition efforts to clear Daesh from Iraq. Through this support, Canada has played a significant role alongside its coalition partners in setting the conditions for the Iraqi government to achieve long-term success through self-sustainable security.

As the coalition efforts developed, so did the MLT responsibilities. The MLT combined more coherently and effectively with the CJTF-OIR Partner Force Development effort, thus forming the CJTF-OIR CJ7 Directorate (Director Training), with the mission to provide staff oversight of the entire training and equipping enterprise in Iraq, as well as military and ministerial strategic advice and assistance, all in support of CJTF-OIR and the Campaign Plan,[5] a highly significant effort.

Through 2017 and most of 2018, the CJ7 and the MLT continued to evolve and develop in support of the CJTF-OIR mission and campaign plan. With the annual transition of the CJTF-OIR leadership and headquarters in August 2018, it was ordered that the CJ7 be split into three components: the new Multinational Training Directorate (Italian-led), the Defense Material Agency (DMA) (US-led), and the MLT (Canadian-led). With this significant change in scope and responsibilities, the MLT transitioned to a new phase and played two roles: first, to support Operation RELIABLE PARTNERSHIP (Op RP) as the Ground Forces capability sponsor focusing effort to build partner force capacity and, second, to continue ministerial liaison duties in support of the operations. Operation RELIABLE PARTNERSHIP was the main campaign line of effort 2 (Figure 1), intended to enhance Iraqi Security Forces (ISF) partner force capacity in order to complete the defeat of Daesh and to set security conditions for long-term stability in Iraq.

THE MINISTERIAL LIAISON TEAM CHANGES AGAIN

> **"The only constant with the MLT is change!"**
>
> —Colonel Vincent Giroux, Deputy Director, Directorate of Inform and Influence (DI2)

Change in any environment (civilian or military) is challenging, from both a cultural and a broader organizational perspective. Change can occur due to necessity or it can be triggered by a changing operational environment, as was the case in March 2019, when change would challenge the MLT team once again.

Since August 2018, the MLT had settled into a routine supporting the capacity building and security sector reform (SSR) initiatives outlined in Op RP. The MLT mission was focused on delivering persistent engagement and liaison with the Iraqi security-focused ministries, including the Prime Minister's National Operations Centre (PMNOC) and the Unified Action Partners (UAP),[6] to advise, assist and

Source: EUAM

Ministerial Liaison Team meeting with European Union Advisory Mission officials

Source: Ministry of Peshmerga

Ministerial Liaison Team meeting the Peshmerga Chief of Staff

enable (A2E), support, promote shared awareness of, synchronize efforts on, and facilitate CJTF-OIR and coalition activities. All this was to be done in order to enable ISF overmatch of Daesh and set the security conditions for long-term stability in Iraq. The team had re-oriented to this approach and re-issued orders to ensure that it was aligned and synchronized with supported directorates. With the establishment of a stable routine, everything appeared to be in place for pursuit of the team mandate and the coalition mission. It was then that several events triggered the MLT's organizational and transformational change into a new, more dynamic organization. These events included the stand-up of NATO Mission Iraq (NMI) and, most important, the defeat of the Daesh so-called "physical caliphate" in March 2019. Although not completely defeated, Daesh no longer had a physical footprint, which sent the signal to the CJTF-OIR leadership that Phase 3 (Defeat) was nearing its end. This signalled to campaign planners that the campaign phase might be transitioning from Phase 3 (Defeat) to Phase 4 (Support Stabilization) and that the operational focus might be changing; both of those events would significantly impact the MLT. With the arrival in early 2019 of NMI to support the ISF at the strategic level with security reform and training, the MLT SSR initiatives were ordered to transition from the MLT to NMI. That would leave the MLT with only pure liaison duties, which were important but were not harnessing the multinational experience and abilities of 14 nations and 16 senior officers (colonels) of the MLT. With the advent of NMI and the perceived CJTF-OIR campaign transition, the requirements and need for MLT were in discussion and needed to be defined quickly.

The prospect of major campaign transition on the horizon triggered significant analysis of the strategic Diplomatic, Informational, Military, Economics (DIME)[7] construct, which would see the military CJTF shift in short order from being the *supported* element to become a *supporting* element. The need to change how operations and business would be conducted was quickly being reviewed to ensure ISF operational support and to prevent gaps in the DIME construct. Recognizing that the new paradigm was imminent, the MLT leadership commenced detailed operational and mission analysis. Applying the collective brain power of the team, it was decided that the MLT could offer valuable contributions and operational relevance in support of the CJTF.

In late March 2019, with the collective MLT mission analysis in hand, the MLT Director (the author) engaged the CJTF-OIR Deputy Commander – Stability (Maj-Gen Chris Ghika) and, through several brainstorming analysis and whiteboard sessions, Commander's Direction and Guidance was developed for the transformation of the MLT. This included the organizational premise and the operational requirements to create new capabilities from the existing

Source: DI2

Directorate of Inform and Influence and NATO Mission Iraq team dinner with Canadian Ambassador Paul Gibbard

MLT structure and personnel. The MLT evolution was based on the premise that synchronized operational-and strategic-level communications coupled with non-kinetic effects were vital to the future success of the CJTF-OIR mission.

Through April 2019, planning proceeded with the drawing together of key senior MLT members into a planning and development working group, tasked to define the operational needs of an evolving organization to fully support and help shape CJTF-OIR's future operations and the possible campaign transition. The working group defined the operational needs as CJTF-OIR strategic engagement, including Iraqi and Kurdish ministerial and UAP engagement; continued facilitation of CJTF-OIR support; gender advising; outreach/academic engagement; and maintaining the ongoing capacity-building task as the Op RP Ground Forces capability sponsor. Based on this analysis, there was a clear and defined need to "influence and inform" CJTF-OIR stakeholders to ensure campaign success and, in particular, a stable future for Iraq.

Through many late-night sessions, and engaging the proven operations planning process (OPP), the working group formulated a plan, then submitted an information brief to the CJTF-OIR leadership. The plan proposed a new multifaceted organization that would provide the coalition team with much-needed engagement capabilities. It was proposed that a transition period of 3–4 months would allow time for the MLT and national contributors to review commitments, for the new capabilities tobe developed and for the organization to be put in place by the summer of 2019. Upon receiving the information brief, the CJTF-OIR Commanding General (CG), LGen Paul LaCamera, immediately endorsed the concept and directed that it be stood up within 30 days. He also dubbed the new organization the Directorate of Inform and Influence – thus DI2 was born! Based on this new CG planning guidance, the team set about planning and implementing the new directorate with initial operational capability (IOC) on 1 June 2019, and full operational capability (FOC) no later than 1 July 2019.

Teamwork and national expertise were now vital to making this happen. Teamwork in its true sense occurred with Canadian, UK, US, and French senior officers developing the plan with direction and guidance from the Director. A key aspect of this organizational change was the engagement and concurrence of the team's contributing nations, ensuring that each nation was cognizant of changes in roles of its personnel and accepting of new roles for future deployments. This was accomplished by briefing the senior national representatives of each nation, who then confirmed through national reachback that there were no issues.

THE DIRECTORATE OF INFORM AND INFLUENCE IS BORN: ORGANIZATION AND EMPLOYMENT

Through determination, teamwork and initiative, DI2 became a reality on time, achieving IOC capability on 1 June 2019. The new organization (Figure 2) was described as a 1-star directorate that conducts the full-spectrum strategic engagement planning cycle, delivers liaison, builds CJTF horizon and contributes to the CJTF JTB in order to maximize operational effects and, through that, CJTF outcomes. Directorate of Inform and Influence capabilities were nested within the campaign plan, with DI2 providing direct support to ongoing operations, operational planning and targeting, and allowing a move from a reactionary to an anticipatory posture in support of CJTF operations, thus helping to shape and influence the battle space. Directorate of Inform and Influence achieved FOC on 28 July 2019.

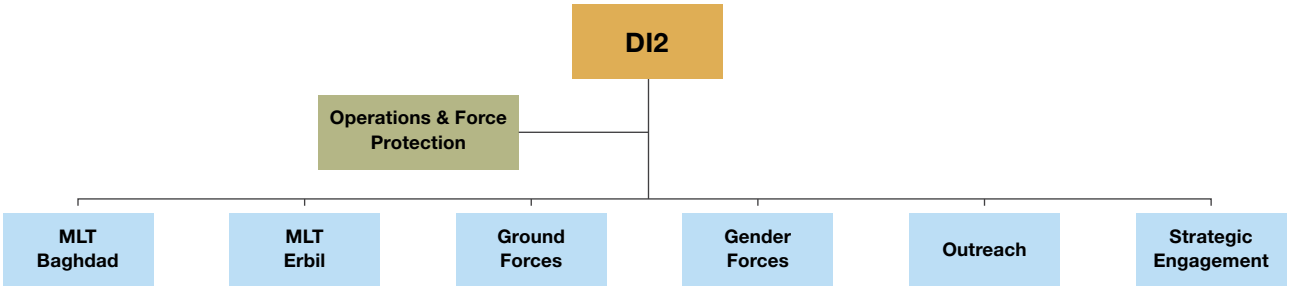

Figure 2: Directorate of Inform and Influence organization chart

The team went through a series of reorganizational steps in order to create the necessary capabilities while maintaining engagement as the Operation RELIABLE PARTNERSHIP Ground Force sponsorship and the original capability of liaison on behalf of the CJTF. The following section provides a series of overviews of the existing and new capabilities the DI2 possessed.

THE MINISTERIAL LIAISON TEAM (BAGHDAD AND ERBIL)

The MLT was maintained and reorganized as sections within DI2; these consisted of MLT–Baghdad, responsible for engagements and liaison with the Iraqi ministries of Defence and the Interior and the Prime Minister's National Operations Centre (PMNOC); and MLT–Erbil, responsible for engagements and liaison with the Kurdish Ministry of the Interior and the Ministry of Peshmerga Affairs. Directorate of Inform and Influence was one of the few CJTF-OIR directorates to maintain relationships with both the Iraqis and the Kurds. Additionally, there were now multiple international agencies engaging the capacity building of Iraq, and they were designated as UAPs. The MLT sections became the prime conduit for the CJTF with the UAPs, which consisted of such organizations as NATO Mission Iraq (NMI), EUAM – Iraq, the United Nations, the Office of Security Cooperation Iraq (OSCI) and several others. Most of the UAPs were focused on Iraqi security sector reform, and as the MLT had just recently transitioned from this role the team took on the task to fully transition security sector reform to the UAPs, thus allowing the UAPs to complement the CJTF mission. The CJTF was a conditions setter and a bridge to mid- and long-term goals, providing mutual support and engagement to chart coherent road maps for the UAPs to support Iraq. The MLT network continued to develop into an ideal mechanism for maintaining CJTF situational awareness, facilitating meetings for CJTF strategic engagement, and facilitating the engagements of the Op RP capability sponsors. Additionally, MLT–Erbil supported Task Force Iraq in the facilitation of joint security mechanism (JSM) engagements, the CJTF effort to enable and encourage the operational cooperation between the Iraqi and Kurdish Security Forces.

GROUND FORCE SPONSOR (OPERATION RELIABLE PARTNERSHIP)

As the Ground Forces led within Op RP, this multinational military and police team engaged with the Iraqi Ministry of Defence (Iraqi Ground Force Command) and Ministry of the Interior (Police and Border Guard Force) to enhance ISF partner force capacity. They also engaged with the Kurdish Ministry of the Interior and the Ministry of Peshmerga Affairs, in support of Kurdish Security Forces and the JSM. The approach to this effort was a successful combination of facilitation, coordination, observation and liaison. Through the tenacity of this team, significant success was achieved, including the collaboration with the Iraqi Border Guard Force, CJTF, and several UAPs resulting in the construction and manning of Border Guard outposts on the Iraq–Syria border, thus freeing other Iraqi security forces for the continued fight against Daesh. Additionally, through team and CJTF facilitation, 5,000 former Iraqi Police officers returned to duty, completing a delta training package taught by the Iraqi Police, and then self-equipping in order to return to work—a significant accomplishment of the Ground Forces team.

Source: DI2

Meeting Major General Al-Shimmari, Director of the Prime Minister's National Operations Centre

COMBINED JOINT TASK FORCE – OPERATION INHERENT RESOLVE GENDER ADVISOR TEAM

Upon the creation of DI2, the Gender Advisor (GENAD) Team joined as a section of DI2. A most valuable and capable team, the Gender Advisors provided the subject matter expertise to CJTF-OIR on incorporating a gender perspective into the planning, targeting and conduct of operations in the CJTF Operations Area. The GENAD provided the CJTF leadership with significant support in facilitating the training of the ISF and the inclusion of women in policing and the military ranks. This included providing an understanding of and perspective on gender weaponization, which became a Daesh tactic against the ISF and Coalition. The GENAD contributions helped shape the campaign plan within all three lines of effort, from gender perspective in operational planning to support an inclusive ISF as part of enabling partner capacity, to using gender in strategic communication and advocacy to leverage coalition effects.

STRATEGIC ENGAGEMENT SECTION

One of the most distinct new DI2 capabilities was the creation of the Strategic Engagement Section, a vital CJTF capability that enabled and facilitated the synchronization and escalation of strategic engagements. This directly supported the CJTF campaign plan and enabled the furthering of Iraqi partner force capacity building. Until the defeat of the Daesh physical caliphate, the CJTF had very much played operational and combat supporting roles; now it was faced with a possible campaign transition and the real need to engage and shape the future of the CJTF and Coalition in Iraq. The creation of the Strategic Engagement Section brought to bear a new level of operational and strategic non-kinetic engagement. It would become a fully integrated component of the CJTF Joint Targeting Board (JTB), thus providing an enhanced capability for the CJTF to engage across the spectrum of operations and multiple levels of engagement. The new section allowed campaign objectives to be integrated with strategic communications to ensure that CJTF messaging was effective and comprehended by the Coalition stakeholders and the larger external stakeholder community. A strategic engagement space (Figure 3) was developed to define arcs of responsibility and synchronization and to allow for issues and challenges with stakeholders to be escalated appropriately from Task Force Commander/Director level, to Deputy Commander CJTF, through to the Commanding General; or most often to be operationalized at the correct engagement level. Synchronization was key across the diplomatic, governmental and military/police stakeholder communities, ensuring that the right relationship holder was supported in any messaging, and cognizant that there was no self-fratricide during engagements.

Early on, significant success was achieved in the de-escalation of challenges related to the transition and provision of support to Iraqi training sites, and also the engagement with Iraqi police forces to resolve capacity-building issues.

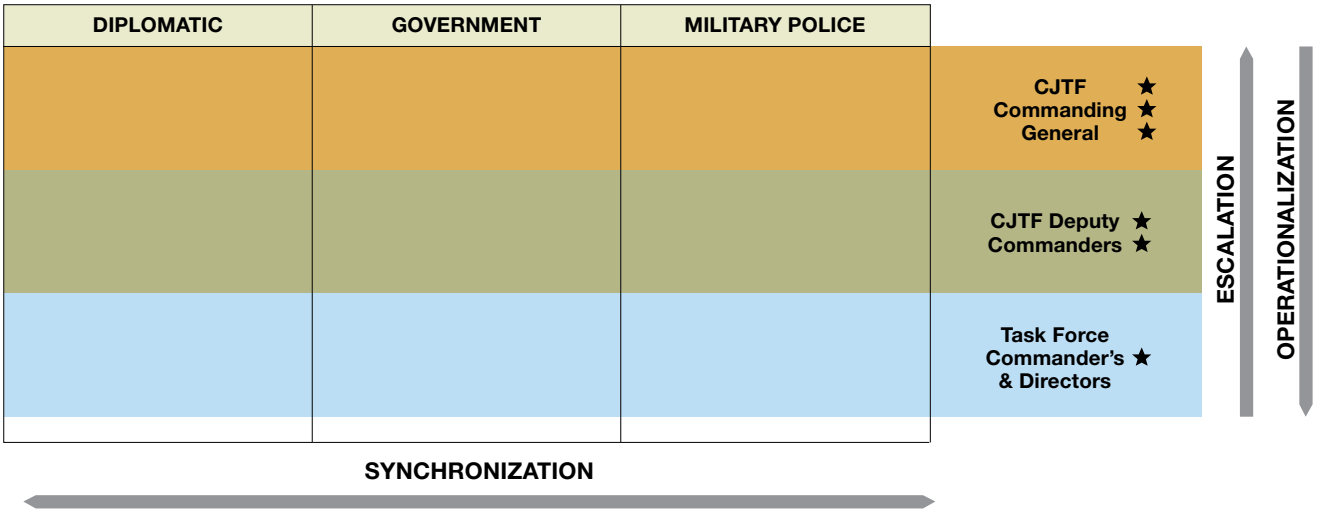

Figure 3: Strategic engagement

Additionally, senior CJTF leaders were now better prepared to engage with international forums in support of CJTF campaign objectives and the evolution of the Coalition.

With the strategic engagement space defined, the team devised the processes by which it would operate and engage with the JTB biweekly cycle. This would be accomplished through the imperative collaboration with the CJTF Strategic Communication team and the CJTF G9 in order to formulate a complete engagement plan, thus synchronizing all effects across the CJTF operations. Using the proven Decide–Detect–Deliver–Assess (D3A) joint targeting and assessment process (Figure 4), the shaping of engagements and messaging was conducted weeks in advance, followed by the synchronized engagement and a follow-on assessment in order to determine whether the effect had been achieved or not.

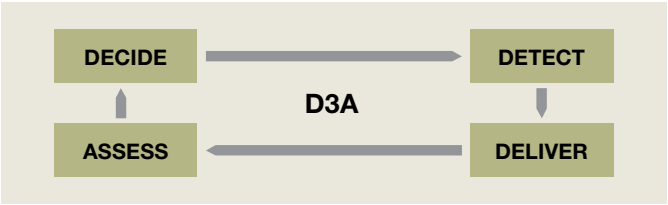

Figure 4: The Decide–Detect–Deliver–Assess joint targeting and assessment process

OUTREACH SECTION

In the early days of DI2 transformation, the Outreach Section was devised to provide the deep-thinking capacity of the CJTF, looking at significant challenges in the CJTF's future. This would be accomplished by engaging a spectrum of brain trusts, including the coalition reachback capabilities, prominent think tanks and international academia, to provide insight and perspective that the CJTF did not have the capacity to achieve. This new capability was still in its infancy with the author's redeployment.

DIRECTORATE OF INFORM AND INFLUENCE OPERATIONS AND FORCE PROTECTION

DI2 would have been unable to manage the significant change and maintain operations throughout the transformation without its own integral support. This support was found in a headquarters and operations section that planned the moves, maintained communication and provided vital intelligence to the team. Supporting the moves was a most capable Force Protection Platoon, whose members provided the protected mobility and ensured the safety and delivery of DI2 members every time they stepped out the door. Directorate of Inform and Influence would not have successfully executed its multiple missions every day without this integral operation, intelligence and protection capability, not having to rely on other CJTF sections and troops for support.

CONCLUSION

The proficiency with which the MLT became DI2 demonstrates organizational change and capability transformation in support of ongoing operations and a campaign plan transition. It shows the need for organization leadership to be forward-thinking, identify strategic-level change and address that change through transformation and capability development. Senior leader engagement and commitment are vital components of transformation, without which change will never occur, and the mission may subsequently be impacted if advantage is not taken of optimized and contributing organizations. Communicating change is also key: the continual engagement of internal and external stakeholders at multiple levels ensures that

Source: US Army

The Directorate of Inform and Influence team, 27 June 2019, Baghdad, Iraq

expectations are managed and operational capability is maintained. Leveraging the multinational team's knowledge and experience reinforced the need for both Allied and Joint interoperability in operational planning processes, service approaches and the significant individual operational experience. The result is a well-defined transformation and effects plan, with clear milestones and communication points, clearly supported by change ownership and accountability.

The creation and development of DI2 capability was a unique and operationally strategic endeavour. The directorate concept was born out of ingenuity and the abilities of a very capable multinational team focused on the need to deliver CJTF effects across the spectrum of both operations and the mission/coalition stakeholders. The combination of strategic and non-kinetic engagement, ministerial liaison, building partner capacity and gender advising, supported by integral operations and protection capabilities, is a unique grouping that was required to meet the operational and strategic need of the CJTF campaign to defeat Daesh and rebuild the ISF. It also presented a unique opportunity and capability construct for the CAF and the Canadian Army to realize existing and emerging capability for current and future missions.

Senior leadership engagement and support is vital to the success of any organization's transformation. Directorate of Inform and Influence became a reality with the unwavering support – for which we are deeply grateful – of Maj-Gen Chris Ghika (UK) and Maj-Gen Alexus "Grynch" Grynkevich (USAF), who was our most willing DI2 "test pilot." An organization is only as good as the people within it; the DI2 team was no exception and several people deserve mention for their initiative and tenacity, which ensured the creation and mission success of DI2. They are Col Vincent Giroux (CA), Col Pascal Ratte (CA), Col Gordon Peckham (CA), Col Richard Lyne (UK), Col Alexandre Richard (FRA), Col John "Cheech" Chong (USAF), Col Paolo Cianfanelli (ITA), Lt-Col John Giannella (USMC), Capt Brendan Alexander (CA) for his ingenuity, and Major Jonathan Inman (CA) for his highly competent supervision of the DI2 Director (the author).

ABOUT THE AUTHOR

Brigadier-General Nic Stanton, OMM, MSM, CD, is currently Director General of the Army Reserve. A career Reservist, he has commanded and led at the unit, brigade and division levels. Additionally, BGen Stanton has held Directing Staff positions at both the Canadian and US Army Command and Staff Colleges. Upon very short notice, he deployed to Iraq in February 2019, where he had the privilege to serve as the first Director of DI2 as part of the US XVIII Airborne Corps Headquarters, supporting CJTF-OIR operations and the ISF partner capacity-building efforts.

A CH-146 Griffon helicopter from 430 Tactical Helicopter Squadron takes off in Northern Iraq during Operation IMPACT.

Source: Combat Camera

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Source: Flickr

Source: Combat Camera

OPPORTUNITIES AND CHALLENGES FOR CANADA IN THE NORTH AMERICAN ARCTIC

Dr. Andrea Charron
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The Arctic can both divide and unify allies in this era of global upheaval. As a region, the Arctic is simultaneously conceptualized as a global commons, a frontier to be exploited, an avenue of attack, the potential theatre of the next armed conflict and an exceptional zone of cooperation. Geographically, the Arctic is the area within the Arctic Circle, but the geopolitical understanding of it is less conclusive.

Major General Bryan Owens, Commander U.S. Army Alaska; Canadian Army Colonel Martin Frank, Deputy Commander Operations, U.S. Army Alaska; and soldiers from 1st Stryker Brigade Combat Team, 25th Infantry Division "Arctic Wolves" and Bravo Company, 1st Battalion, Princess Patricia's Canadian Light Infantry participate in an operations order briefing at the brigade tactical operations centre during ARCTIC ANVIL Rotation 16-02.

The most common media narrative of the Canadian Arctic is that it is under threat or that Canada is in danger of losing sovereignty over it, neither of which is accurate or reflective of what is actually happening. While there are many challenges and opportunities facing the Canadian Arctic, I want to focus on just a few of each. The two challenges are as follows: 1) the geopolitically contested world order; and 2) the different ways that Canada and the U.S. interpret the threats posed to the Arctic, which results in miscommunication. The opportunities lie in three areas: 1) the Pentagon's Arctic Strategy; 2) science and technology; and 3) the Canada–U.S. (CANUS) advice architecture that exists but is often forgotten.

The first challenge is that the world order has never been more geopolitically contested. The Canadian government is concerned with all of the problems of "anarchy"—hegemonic struggles, power transitions, spheres of influence and reactionary nationalism. That is all made more complicated because of the worldwide pandemic and global recession. Now is not the time for a showdown between globalists and nationalists, but that is what seems to be happening. In the Arctic, this showdown manifests itself in two extreme ways—nationalists tend to want to confirm ownership, control and decision-making power over the Arctic while globalists want to treat the Arctic like a park and ban all activity.

Canada, as a coastal state, is nationalist when it comes to the Arctic, as is the U.S., but the two countries have different understandings of what the major challenges in the Arctic are and what resources should be spent to address them.

Whitney Lackenbauer talks about threats in, to and through the Canadian Arctic, and I suggest that, while the U.S. focuses on the "through" and "in," Canada focuses on the "to."[1] Canada cites climate change and lack of development as the most pressing concerns facing the Arctic, not to mention reconciling Canada's troubled relationship with Indigenous communities throughout Canada. The U.S., for political reasons, downplays climate change and, being a world power, necessarily focuses on great power competition. That means that the U.S. references the North American Arctic as an avenue of approach[2] and is far more focused on threats "in" the Arctic, such as foreign-controlled ownership of mines and infrastructure.

More and more, the U.S. sees the utility of viewing the world from a polar perspective rather than the usual orthographic (East–West) view. For example, emerging Arctic security challenges demonstrate the critical importance of maritime, air, and space domains, which have been historically underemphasized within an East–West framework.

Source: Flickr

Major Chelsea Braybrook, Commander, Bravo Company, Princess Patricia's Canadian Light Infantry, participates in the 1st Stryker Brigade Combat Team mission analysis briefing during ARCTIC ANVIL at Donnelly Training Area, Alaska.

That does not mean that the U.S. does not care about the effects of the warming Arctic—or that Canada completely ignores Russia and China—but the different priorities create resource-allocation and attention challenges that are increasingly difficult to reconcile. And it means that Canada and the U.S. are speaking different languages when it comes to threats.

The North Warning System (NWS) is a good example. It is configured to detect threats through the Arctic. Both the U.S. and Canada readily acknowledge that the NWS, with its Commodore 64 vintage technology and one of the very few NORAD-owned assets, needs replacing/moving/reimagining. It is crucial for deterrence. Both states are working to devise new technological and systems solutions, but while the U.S. can convince even a divided Congress of the need to spend billions for systems that provide a critical operating picture (that could, with forethought, capture information of use for other government departments), Canada's government has usually had a difficult time convincing the Canadian public that spending billions with the U.S. to jointly defend North America is money well spent. While the U.S. specifically references Russia as an acute threat and China as a chronic one in an Arctic context, Canada shies away from naming a particular adversary—we use the term only three times in *Strong, Secure, Engaged: Canada's Defence Policy* and reference Russia as problematic in an Eastern Europe context and China in a South China Sea context. Canada only references NATO's concern with Russia in an Arctic context, but that is assumed to reference the Greenland–Iceland–UK–Norway gap (GIUK–Norway)—the main maritime approach to the Arctic in the North Atlantic. While Canada sees the Arctic as exceptional (still a zone of cooperation that is low tension),[3] the U.S. is growing increasingly skeptical, as evidenced by stark warnings from Secretary of State Pompeo in 2019, especially with regard to China.[4] Canada and the U.S. still say there is no imminent military threat to the Arctic, but NORAD, for example, is quick to highlight when Russia has tested North American air defence identification zones.

The miscommunication is starker today because the U.S. is feeling more vulnerable despite the increasing militarization of its foreign policy—it has not had to think about homeland defence from home so consistently.[5]

The U.S. strategy has been to project power globally uncontested to protect the homeland. And now, attention is being focused on the fact that the Arctic connects Europe, Asia and the U.S. homeland and is no longer a "moat." Canada, for its part, underestimates how concerning the great power competition is for the U.S. and, given Canada's history of rejecting missile defence (which it has done a few times in the past) and of failing to come to any decision on replacement interceptors, the U.S. perceives a lack of attention by Canada to the defence of North America.

BUT NOW TO THE OPPORTUNITIES

As Lindsay Rodman has argued,[6] the Pentagon's latest 2019 Arctic doctrine[7] invites allies to take more of a role in the Arctic than would otherwise be expected from American defence doctrine. Canada, therefore, can help shape U.S. exercises and priorities when it comes to the Arctic being as we are the larger North American partner by real estate and have far more experience working with Indigenous and other government departments in an Arctic context, albeit in tactical/operational scenarios and more often in land domain scenarios. In a strategic context, and in most other domains, the U.S. will still be the lead, especially given that the U.S. combatant command plan ensures that NATO's supreme allied commander is also the United States European Command (US EUCOM) Commander and that United States Northern Command (USNORTHCOM), US EUCOM and United States Indo-Pacific Command (US INDOPACOM) carve the Arctic into three parts—a challenge for the U.S. and, by extension, Canada and NATO allies.

Canada and the U.S. lead in Arctic science, and that present the biggest opportunity to improve surveillance, communication, and a better understanding of the Arctic as an ecosystem. MOSAiC—an international consortium of researchers, including Canadian and American ones—purposely embedded a ship, the Polarstern, in the Arctic ice floe near the North Pole for a year to collect data. Cubesatellites and nanosatellites are excellent at data collection, especially as it relates to sea ice thickness, military tactical communication, and improved Internet coverage for communities. New hydrogen fuel sources and increased interest in electric cars are being tried, and there is now a concerted effort by the eight Arctic states to preserve and promote Indigenous languages through a variety of media. RADARSAT Constellation is providing invaluable information for maritime surveillance and disaster management, which all helps to create a more complete common operating picture—the real innovations are coming from the science community using Indigenous knowledge. What is more, the science communities tend to work together, not apart, which helps to break down miscommunication and misunderstandings.

Signal Operator Corporal Charles Massé attempts to establish communications at Polaris Mines, Nunavut, during Operation NANOOK-NUNALIVUT.

Source: Combat Camera

Source: Combat Camera

Finally, 80 years after the Permanent Joint Board on Defence (PJBD) was created by way of a press release,[8] and 74 years after the CANUS military cooperation committee was formed—and with two new DND directorates on continental defence policy issues—Canada has, in theory, the advice architecture in place

Source: Combat Camera

to consider how best to organize and plan for changes in the Arctic. Here are some topics that I suggest should be considered:

- Does the tri-command structure, especially as it relates to the Arctic, need revisiting?
- The U.S. has an Arctic Capability Advocate (the Alaskan NORAD Region commander). Should Canada have one?
- The tendency toward domain-specific component commanders is antithetical to the U.S.'s goal of joint all-domain command and control. How does Canada achieve this in an Arctic context?
- Are exercises truly testing novel scenarios by simulating the disappearance of key nodes of capabilities and information and simultaneous crises and disasters?
- Can we sustain exercises in the Arctic for long periods of time?
- Are we giving due thought to Article 30 of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP)?[9] Do we think about building/aiding community resilience?
- What can be done to ensure that new technologies are integrated more quickly into solutions?

CONCLUSION

Canada and the U.S. share the desire for the Arctic to remain a secure and stable region in which U.S., Canadian and allied national security interests are safeguarded. Recognizing the different perceived threats and niche approaches will help with communication. In this new world order, accidents, incidents and misunderstandings can lead to precipitous actions. The Canadian Army and its Rangers are key to ensuring a common understanding of security risks and threats within North America and modeling for U.S. colleagues a reimagined relationship with Indigenous peoples as partners in defence. As well, the Army is accustomed to working with other services and other government agencies and can help the forces to think in terms of joint all-domain awareness and action in many different scenarios.

Furthermore, defence, security and safety issues are no longer thought of as mutually exclusive or as the sole responsibility of particular departments or groups. The Arctic demands a whole-of-government and community approach. Complementary scientific and Indigenous knowledge are vital to better anticipate hazards and respond more effectively. In a wider CANUS context, rediscovering the decades-old advice architecture, such as the PJBD, is also important, especially if discussions recognize the different approaches and points of view. The good news is that U.S. military forces have begun to pay more attention to the Arctic in their planning and operations. The better news is that there is room for allied expertise to make sure a rules-based order, built on constructive engagement among Arctic and non-Arctic states, addresses shared economic, scientific, and environmental challenges.

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Dr. Andrea Charron holds a Ph.D. from the Royal Military College of Canada's Department of War Studies. She also has a Master of Arts in International Relations from Webster University, Leiden, The Netherlands, a Master of Public

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THE BATTLE OF SANGSAR

Sergeant Christian Plante

The village of Sangsar, together with the hamlets nearby, is the headquarters of the Taliban movement, which has its roots in this region of Afghanistan. On the tactical level, it is the insurgents' replenishment hub, from which they mount their harassing attacks against the outposts of the Afghan Army (whose members are receiving mentoring from Canadian military instructors/advisors belonging to the Royal 22e Régiment) and all the replenishment convoys that travel along the main highway in the region.

MISSION: B Company will seize houses (previously assigned to its platoons) in order to maintain control of the junction of the two dirt roads passing through the centre of the village and defend them against any Taliban counter-attack. An Afghan Army outpost will then be constructed in the ruined houses adjacent to the junction for the purpose of maintaining order in the area. The civilians whose buildings have been expropriated will be generously compensated by NATO. In order to create the element of surprise, this will be a "light" infantry raid, in which the infantry soldiers will not be able to depend on LAV III (light armoured vehicle III) armoured personnel carriers and left without close support from Leopard 2 tanks. They will be moving under their own power and cut off from sources of replenishment for up to 48 hrs. That means the troops must make their way to the battle site on foot.

Under cover of darkness with a favourable moon, the members of the company prepare quickly for the difficult journey that awaits them before they can carry out the crucial phase of their mission. The air is chilly, but dressing warmly would be a mistake: this march will be physically taxing and the soldiers' body temperatures will rise quickly. Each soldier, in addition to full fighting order, consisting of 300 rounds of rifle ammunition and two hand grenades, will carry a rucksack holding everything

"Each soldier, in addition to full fighting order, consisting of 300 rounds of rifle ammunition and two hand grenades, will carry a rucksack holding everything required to survive for 48 hrs (combat rations, warm clothing, 6 L of water, spare batteries for the sub-unit radios, and a 66 mm anti-tank rocket launcher)."

Source: Combat Camera

Source: Combat Camera

required to survive for 48 hrs (combat rations, warm clothing, 6 L of water, spare batteries for the sub-unit radios, and a 66 mm anti-tank rocket launcher). The entire load weighs almost 100 lbs. The worst off are the members of each platoon's weapons detachment, who must use the machine guns and also carry boxes holding 200 rounds of 7.62 mm ammunition. We each check to make sure the laser on the end of our weapon is working (it points where we aim, but is visible only through the night-vision monocle attached to each soldier's Kevlar helmet).

After receiving confirmatory orders and inspecting our equipment thoroughly, we prepare for a gruelling trek. The members of the reconnaissance platoon who are our scouts have described the type of terrain we'll be navigating. They walked the "trail" in the evening and left an advance party at the site, so they are well prepared to brief us. At first sight is enough to give us an idea of what to expect (a picture is worth 1,000 words!) and to demoralize us somewhat. All the guys are wet and splattered with mud up to the waist. They look exhausted—and the "recces" are the fittest soldiers in the battalion!

At 0100 hours, the first elements of our organization venture out cautiously through the dense darkness of the Afghan vineyards and the wadis (dried-up riverbeds). The conditions are unforgiving: the cultivated fields and vineyards are furrowed and surrounded by 4-ft-high walls made of dried earth that is as solid as concrete. At night, and carrying a full load, it becomes a true obstacle race, since there are so many walls to climb over. It's challenging, and the darkness and the uneven ground increase the risk of knee and ankle injuries. Not exactly a stroll in the park! It will take us almost 4 hours to advance just 5 km in the darkness over that very difficult ground. After a few hundred metres, sweat is starting to run down our faces

Source: Combat Camera

and we can gauge the true scale of the task facing us. I suspect that a lot of guys, including myself, are quietly cursing the guys from the recce group for choosing such a miserable route. But in reality they did an excellent job, because an easier route would compromise our mission by increasing the risk of contact with civilians. In order to keep going, we often have to help each other over the walls. Sometimes we have to give a guy a hand after he often falls and is lying helplessly on his back like a turtle, pinned to the

> "We are on the lookout in all directions, trying to analyze what people in the vicinity are doing."

ground by the weight of his pack. The second portion of the route is even less fun: it takes us through recently irrigated fields that are deep in a dreaded substance that will slow our movements drastically—mud! Like quicksand, it seems to suck us down. Every step is hard slogging, and the experience is reminiscent of the factory scene in *Terminator 2* when T-1000's body is liquefied. Faint swearing can occasionally be heard in the darkness when someone falls heavily in the mud, the swamp seems to be perfidious swallowing our tan suede boots. We couldn't have imagined a better guide through this mess than the infamous Gollum from *Lord of the Rings*.

During this seemingly interminable portion of the trek, our heart rates have increased so much because of the difficult terrain that we start to wonder whether we'll make it to our destination. But abandoning this technically complex "hike" is out of the question, and adrenalin plus our training pushes all of us to stick with it. March or die! As we get closer to our objective, we start passing farms and houses, and we have to be quieter and more careful. Every time a dog barks in the distance, it's a warning, and the patrol slows down and halts. This is a real obstacle drill, as it involves crossing a stream (otherwise known as a "water obstacle"). That means not only getting dirty, but also getting wet—all in a day's work for an infantry

A few hours after the engagement at Sangsar, platoon members take turns standing watch while awaiting a potential counter-attack and letting the mud dry, with M-72s at the ready. *November 2007*

Source: Sergeant Christian Plante

soldier. We're all secretly hoping it won't be too deep. After a few long minutes' wait, it's my turn to cross. I step in and realize immediately that the stream is actually quite deep: the cold water comes up to my underwear.

We can see first light on the horizon, and that means we have to pick up the pace. Like Dracula returning to his castle before dawn, we must reach our objectives in the village before daylight. If we arrive late, the consequences could be very serious. After a bit more effort, in extremis, we are within 300 m of the village, and the sub-units deploy in formation to close in and take their objectives. By now it's light out. Far off, we can see civilians already up and about, washing or carrying out their first tasks of the day. Will they signal our presence to Taliban in the area? Or, worse, are they Taliban themselves? We run through 300 m of open fields and arrive, panting, to take our positions along the wall surrounding the house my platoon has been assigned to capture. Our entry technique is based on urban warfare tactics, and we had to pay careful attention to all of the house's recesses and blind spots. The other platoon presses on for 200 m farther east, ready to take control of the other residential compound. For the moment, everything is quiet. We can hear a rooster calling, and the dawn call to prayer from the local mosque ended some time ago.

When the prearranged signals are given, the various formations move quickly and simultaneously into the residential compounds, in a dynamic way, expecting the worst. Silently entering each room to make sure there's no one there (civilians or enemy), the detachments are vigilant, index fingers on the trigger guards of their weapons, ready to respond in the face of any threat. The walls of the houses are made of dried mud, and the rooms are dim in the early morning light. A strong odour of farms is pervasive. Within 10 min, both platoons have taken control of the buildings, and we are relieved that we can now plan our preventive fire positions in order to organize the defence of our perimeter. The two compounds that our platoons took easily, because they were deserted, will serve as the foundation for constructing a fortified outpost which the Afghan Army can use to control the area. Both compounds are situated at the T-junction of a primitive but passable road network.

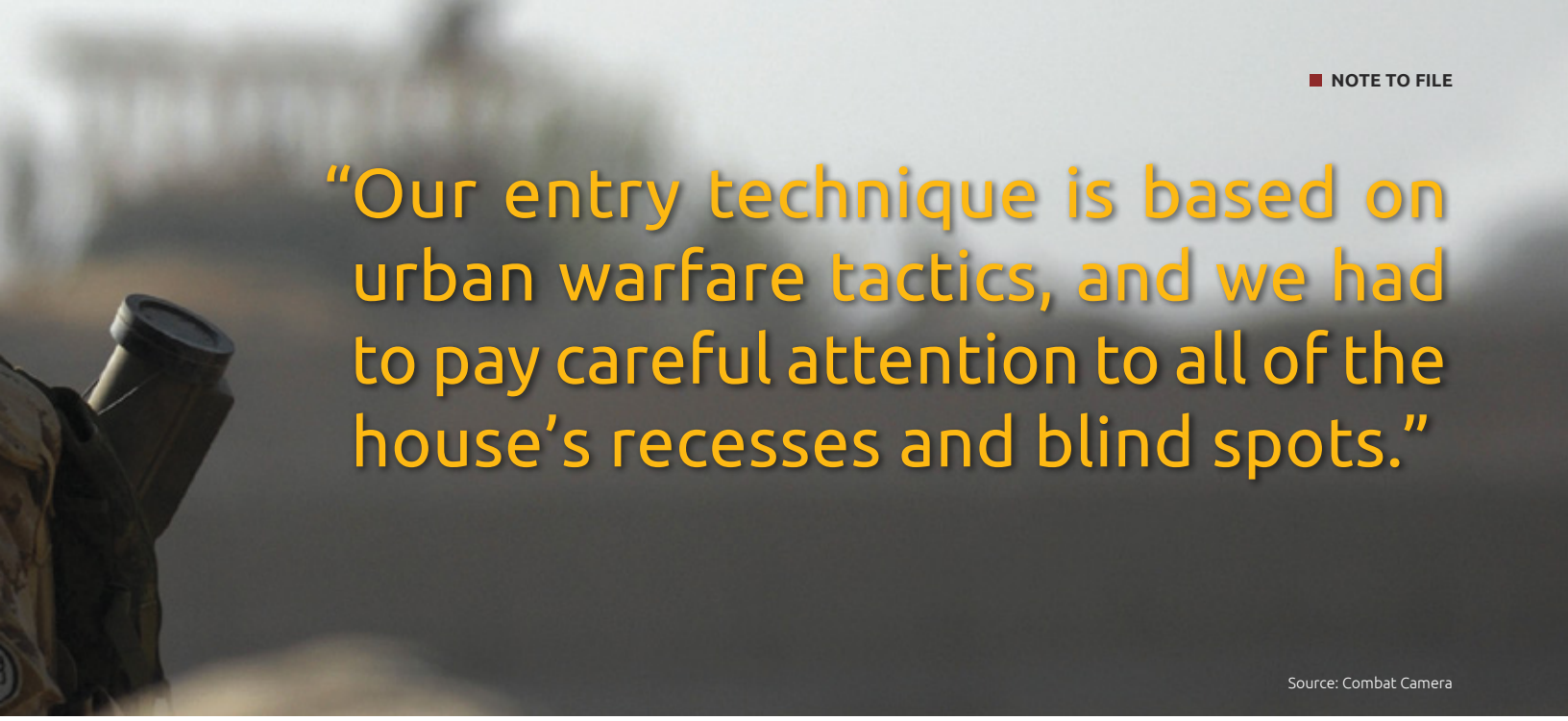
The platoon members take their positions, and some of them are already signalling their sergeant that they can see groups of men in dark clothing moving from the southeast to the north. The Taliban are well aware of our "civilized" rules of engagement which state that we can fire only on people who are armed. That is why they have multiple arms caches in the fields and on the farms (which they visit at the

last minute before carrying out their operations). We are on the lookout in all directions, trying to analyze what people in the vicinity are doing. If we see women and children quickly leaving an area, it's a sign that they know Taliban are nearby and a confrontation is imminent.

At that very moment, two guys from my section who have climbed onto the roof of the house (to cover the north) crash to the ground amid the unmistakable thunder of an RPG 7 rocket (a Russian-made anti-tank weapon) that has just slammed the house a few metres below where my colleagues were standing. In the cloud of smoke billowing from the point of impact, they quickly scramble to their feet, unhurt and ready to face the enemy, which seems to be organizing an attack to retake this strategic spot. Our platoon machine-gunner immediately opens fire, producing a long burst of tracer fire that warns us of a threat from the north. Every soldier in the platoon is now on the alert, and some have already opened fire on the threats that seem to surround us. It's a miracle that my two colleagues were not hit by shrapnel and sustained no fractures from their ten-foot fall. (In hindsight, I have to say that it was not the ballistic and explosive effects of the impact that threw them to the ground, but rather their own survival instinct—i.e. a deliberate dive.) From the enemy's Kalashnikovs comes a hail of bullets near the roof, accompanied by the weapon's characteristic rattling sound. At that moment, another RPG projectile flies over our heads, and multiple bursts of fire for effect coming from various points to the north remind us that the insurgents are determined to use their AK-47s to dislodge us. Still feeling the effects of the all-night march and looking at what is shaping up to be a long, sunny morning ahead, the guys of B Company are hoping that the perimeter they are there to defend will not become a second Alamo.

Reduced detachments of insurgents have begun flanking us on the east and the west. All the soldiers in my unit try to achieve the best possible compromise between cover and observation behind the walls of the compound. Some use their bayonets to gouge holes in the walls that they can fire through. From their perches, the snipers deliver fire for effect, and the bullets fly just above our heads, forcing us to keep them down. But we have to return fire, so the section machine-gunners do their best to provide suppressive fire in the spots where Taliban are seen or are likely to be holed up. They are difficult to see because they know the terrain, especially the layout of the fields and vineyards, so well that they use it very effectively. It makes me think of the Bocage in Normandy, which our grandfathers must have trudged through sixty years earlier to dislodge the panzergrenadiers of the Waffen-SS. Also, 30 m in front of our defence perimeter is another residential compound that blocks our view. We suspect that the enemy is present, because the guys in the other platoon are also engaged in a confrontation on their side and some soldiers are firing at that compound.

Contact began at 0600 hours; now it's almost 0730 hours and the violent exchanges of gunfire continue. Our Platoon Warrant Officer is constantly making the rounds of the perimeter to encourage the men and to ensure that they maintain fire discipline, as we need to conserve ammunition. A member of my section warns us to clear the area behind him to avoid the backblast, then fires an M-72 rocket toward an enemy position, producing a cloud of dust and a resounding boom. Two other soldiers bravely decide to climb onto the infamous roof to gain control of the situation and have a better vantage point for observing the battlefield. One of them uses his machine gun several times on the Taliban, who are now more visible. From his



"Our entry technique is based on urban warfare tactics, and we had to pay careful attention to all of the house's recesses and blind spots."

Source: Combat Camera

precarious position, he is also able to direct his colleagues' fire toward high-priority targets. But a few bursts of well-aimed enemy fire quickly convince him that it would be smarter to get down from there and find a new combat position. Especially since, once back on the ground, he discovers that his machine gun is inoperable due to an enemy round jammed (miraculously?) in its ejection mechanism. He is certainly the luckiest Canadian soldier of the day: by functioning as a shield, his weapon saved his life and his partner's. He quickly and effectively switches to an observer role, armed only with his personal 9 mm pistol for close defence. Our perimeter is being engaged from virtually all directions, and it's almost 0800 hours. The situation is critical, but relatively under control—so much so that the platoon operating in the compound next door is engaged in close combat and we hear a soldier shout "Grenade!"

One of our platoon's most dangerous and effective assets is the careful, surreptitious work of our qualified sniper. This corporal, using his rifle equipped with a powerful magnifying scope and a silencer, can do a lot of damage. Each muffled shot boosts our morale, because we know that this vital, highly specialized warrior rarely misses his target.

Near the house across from us, we can hear conversations shouted in Pashto (an Afghan language). It must be the Taliban command and control. The interpreter accompanying us on our mission understands it all and translates it for us: the Taliban's cries of defiance can basically be summarized as "Come on, Canadians! Come and fight us!" Since the enemy's conversational salvos give us a good approximation of their position, I use my M-203 to send a few 40 mm grenades their way. Silence falls—our argument must have been convincing.

The situation in the village now justifies the use of artillery to support our efforts. We've succeeded in pinpointing their movement route 400 m to the north and a few small-arms fire locations. At that moment, the artillery forward observation officer accompanying us during this mission makes his appearance. With a single brief radio communication, he automatically unleashes hellfire on the Taliban in a storm of steel that will continue for almost an hour. Each explosion shakes the ground, and the shockwaves are transmitted through the surrounding area. This is not a good time and place to be a Taliban. We have a close call when a shell mysteriously explodes near our wall, sending clods of earth over our heads. "On l'a échappé belle!" as the Francophone say. Napoléon Bonaparte said that artillery is the queen of battle, and few Canadian soldiers here today would contradict him.

After 3 hrs of combat, it seems that the effects of the 155 mm 777 guns have worn down the Taliban's determination in the fief of Sangsar. The firing stops and the guys in B Company can take a deep breath for the first time in eight long hours. However, they must still maintain surveillance on all sides to prevent any subsequent counter-attack. A U.S. Air Force F-15 makes multiple passes over the site in a show of force and even uses its 20 mm gun to fire on a group of Taliban disengaging a km away from our perimeter. And, just moments after things quiet down, we are greeted by a surreal vision: an Afghan woman accompanied by two young children emerges from a house barely 75 m beyond our front line and begins going about her daily tasks, apparently undisturbed by the morning's events. It's difficult to fully describe the conditions we experienced, but I hope this account has given you a good idea of the infantry soldier's work environment.

Source: Department of National Defence

"Canadian Armed Forces members mentor members of the Niger Armed Forces while they conduct a patrol at the platoon level as part of Operation NABERIUS 2017 in Nigeria. (Photo: Op NABERIUS 1702)"

OPINION:

THE CANADIAN ARMY SHOULD CREATE SECURITY FORCE CAPACITY- BUILDING UNITS WITH A DUAL ROLE TO SUPPORT FORCE GENERATION

Major Nicholas Fysh, CD

Canada's two closest allies have created task-tailored capacity-building units. The U.S. Army has stood up five security force assistance brigades (SFAB)[1] to conduct advise and assist missions.[2] The British Army has re-rolled four infantry battalions into "specialized infantry" battalions and has stood up a fifth one from scratch to "provide expert capacity building and training skills with a focus on niche capabilities or areas of the world."[3] Understanding the size discrepancy between the American and British armies compared to Canada's, I believe that there is a good argument for Canada to follow that trend and also that there is a way to leverage the units to be a benefit rather than a hindrance to the Army's force generation.

What I am proposing is that the Canadian Army (CA) establish units that serve a dual role of conducting security-force capacity-building (SFCB) engagements with developing armies (or other security forces) as well as form a surge instructor cadre for the CA own force generation courses.

Many of the CA current and recent operational outputs are already in the SFCB space. Having units that are tailored to conduct SFCB operations will increase the Army's strategic relevance by better positioning it to complete a task that is growing in importance. Additionally, by having the units fill a dual role as an instructor pool, the Army can increase force-generation capacity both in terms of quantity and quality as well as have residual positive impacts on recruiting and retention. It stands to reason that soldiers who are good mentors for partner forces will make better instructors, who in turn will build a better CA.

While regular infantry battalions are quite capable of conducting SFCB operations, units specifically designed for that role will be able to do it more effectively and efficiently. Usually, when an army unit is assigned an SFCB task, it is the non-commissioned officers (NCO) and officers who are most engaged. While some soldiers are still required to perform force protection, demonstration, and general duty tasks, there is a significantly reduced need, usually leaving an oversized and bottom-heavy rear party during deployments. Task-tailored SFCB units would not experience that inefficiency.

THE INCREASED NEED FOR CAPACITY BUILDING

The number of SFCB operations that the CA has been engaged in within the last decade or so is evidence that SFCB operations are becoming increasingly important expeditionary tasks for the CA. Currently, the CA is involved in SFCB through Op UNIFIER in Ukraine, through the NATO training mission in Iraq as part of Op IMPACT, through the CA contribution to Op NABERIUS in Niger, and through the contributions to the Canadian Training Assistance Teams in Jordan and Lebanon. Previous recent SFCB contributions worth noting are the Canadian contribution to NATO Training Mission Afghanistan as part of Op ATTENTION in Kabul, and the Operational Mentor and Liaison Teams in Kandahar, Afghanistan. Importantly, one of the stated core missions in Canada's 2017 Defence Policy is to "engage in capacity building to support the security of other nations and their ability to contribute to security abroad."[4]

Improving the CA ability to engage in SFCB operations will allow it to have a greater strategic impact in today's geopolitical environment by allowing us to have the following effects:

1. **Disrupt threats abroad through local security forces.** Today's threat actors are networked and have little regard for national borders. They also thrive in areas where local governments and security forces lack reach and capacity. By enabling partner forces to disrupt threat actors in their own countries, we can disrupt their networks and improve our own security.
2. **Compete for access and influence with malign state actors.** Security-force capacity building operations allow us to develop relationships and gain access and understanding in places where we are competing for influence with countries like Russia, China, and Iran.
3. **Gain lessons learned from partner force operations.** Lastly, SFCB operations also allow the Army as an organization to stay current, even when we are not directly engaged in our own operations, by observing enemy tactics, techniques and procedures and gleaning lessons learned from partner force operations.

IMPROVING ARMY FORCE GENERATION

If the CA were to simply establish SFCB units that would address a specific operational output but would also create pressure on force generation. Because SFCB engagements can be conducted on an iterative basis, it allows the potential for SFCB units to also fill a dual (but complementary) role as an instructor cadre for the CA own force generation (FG). Under that model, SFCB units can benefit both operational outputs as well as FG.

As the primary instructors in any army, quality NCOs are the key (as always) to conducting FG. While building SFCB units would initially place a premium on NCOs, the FG role would eventually produce more and better quality NCOs. I would suggest that the dual SFCB/FG role is mutually supportive, as it would create a mentorship culture; better capacity builders produce better instructors and vice versa. That in turn produces better trained soldiers.

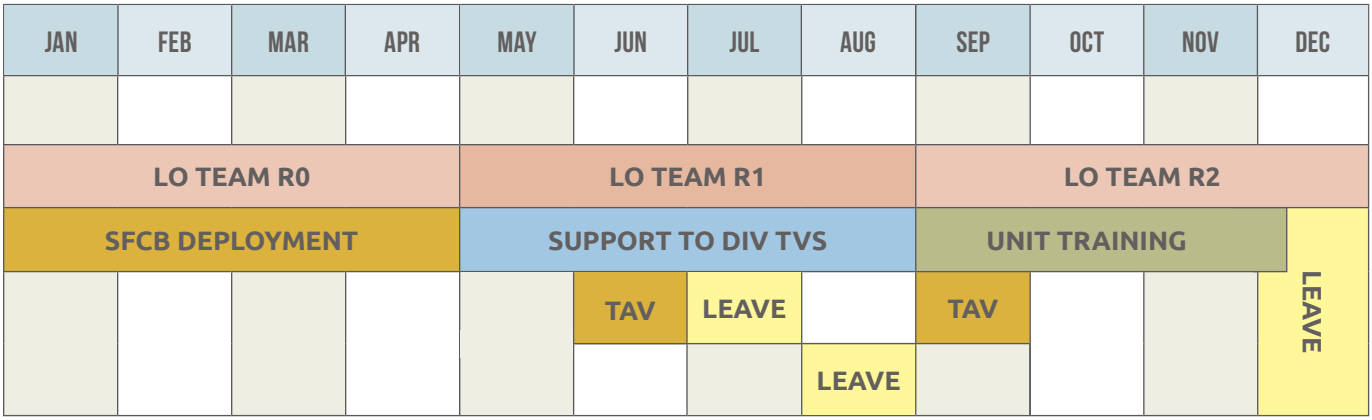
As it stands right now, supporting army force generation courses at the divisional training centres (Div TC) is a constant and heavy (but very necessary) tax on the infantry battalions, especially in terms of NCOs. Having almost a battalion's worth of NCOs and officers expressly available as instructors for specific periods of time will reduce this burden on the other infantry battalions while predictably providing the TCs with an increased pool of quality instructors that will allow them to run more courses and run them to a higher standard.

SECURITY-FORCE CAPACITY-BUILDING DEPLOYMENT CYCLE

In order for that scheme to work, each SFCB unit needs to be able to split its time between SFCB deployments, instructing on army courses, and their own unit training activities (individual battle task standards, collective training, theatre mission specific training, etc). Conducting focused, iterative capacity-building engagements of two to four months with some shorter needs assessments and specialized training advisory visits would allow SFCB units to stay connected with their partner force while maintaining that division of time. Variations on that could include staggered deployment cycles from the same unit

or multiple units engaging with the same partner force on a staggered basis. Additionally, I would recommend that a persistent liaison officer team remain in theatre to coordinate with the partners force, to keep appraised of their specific needs, progress on operations, and lessons learned, and to generally maintain situational awareness.

Here is what a yearly cycle for an SFCB unit might look like:



Managing deployments is a persistent morale issue. Lack of deployment opportunities is a dissatisfier for many soldiers, whereas long or unpredictable deployments can wear soldiers out and have adverse effects on family life. I predict that this model would have residual benefits on recruiting and retention, as it would offer more frequent deployments but also ones that are shorter, predictable, and more manageable. Security force assistance brigades units could also be augmented by reservists who commit to the full year cycle, providing Reserve NCOs and officers with an excellent development opportunity.

While the remainder of the parent Canadian Mechanized Brigade Group (CMBG) would remain on a three-year deployment cycle, the SFCB units would follow the same deployment cycle every year. While that could become complicated during high tempo periods when brigades are in their deployment phase, it would also provide an outlet to mitigate some pressures by removing some tasks from the other brigade units. Additionally, SFCB units would provide a mechanism to manage deployments and pers tempo by posting soldiers between the other brigade units and the SFCB unit. Getting posted to the SFCB unit could also be a carrot for mature soldiers from the other battalions.

SECURITY-FORCE CAPACITY-BUILDING UNIT IMPLEMENTATION

In order to create SFCB units, the Army would be required to re-role existing units, stand up new units, or do a combination of both. My intention here is not to be prescriptive on the exact structure and implementation of building SFCB units, as I think the most important part of my argument is the value of having SFCB units able to effectively conduct a dual SFCB and FG role, regardless of how that is achieved. The examples I will offer below are my own musings on how this scheme might be implemented, recognizing that there are many ways that would both meet the Canadian government's strategic aims and meet the CA own needs.

My preferred implementation option would be to re-role the 3rd Battalions into capacity-building units, as that option would allow for three SFCB units (one per brigade) that would be immediately capable of filling both SFCB and FG roles in a competent way. The 3rd Battalions' light infantry role makes them ideal for mentoring developing partner forces who are much of the time based on light infantry. Additionally, having the pre-existing battalion structure would make it easier to nest the enablers and combat service support (CSS) functions that are required for the unit's own real-life support on operations as well as to mentor partner forces in those specific areas.

Re-rolling the 3rd Battalions would also free up additional soldiers to fill out the 1st and 2nd Battalions, maybe even bringing back their fourth rifle companies and fully manning the combat support companies. Having one SFCB unit from each Regular Force infantry regiment also has the benefit of making it easy to move members in and out of SFCB units to battalions in order to spread the wealth in terms of experience and deployments to better manage career progression and individual pers tempo.

My aim is not to get into a discussion about the merits of maintaining a light infantry battalion in each CMBG; rather, I am making that suggestion as an effective way to stand up CB units that are immediately able to conduct both SFCB and FG roles. The obvious counterarguments are that this effectively eliminates a manoeuvre element in each brigade and we may lose practice on some light-infantry-specific skillsets (although that could be mitigated by maintaining

those skills within the SFCB units). I would note that, as the 3rd Battalions would retain their leadership structure, they could re-role back should requirements change.

Alternatively, new SFCB units could be stood up from scratch, but they would not be as immediately capable and would likely initially be a burden on manpower resources until they reach maturity. The approach would have to

spectrum can include many tasks, such as the following: the instruction of basic soldier skills, assistance in developing a sustainable FG program, train the trainer, development of training institutions, NCO and officer development, advise and assist, operational mentorship, and training advisory teams focused on niche or specialized skillsets. Security-force capacity building units will not only need to deliver training and mentorship, they will also need to assess

Source: Department of National Defence

Members of the Forces armées nigériennes participate in a live-fire training range under the supervision of Canadian Armed Forces members during Operation NABERIUS 2017 in Niger. (Photo: Op NABERIUS 17-02)

be incremental, probably starting with a company-sized element per brigade and expanding from there. The advantage to that incremental approach is that it would serve as a proof of concept before making more drastic changes and would maintain the number of manoeuvre elements and the light-infantry capabilities in each CMBG.

SECURITY-FORCE CAPACITY-BUILDING UNIT EMPLOYMENT AND STRUCTURE

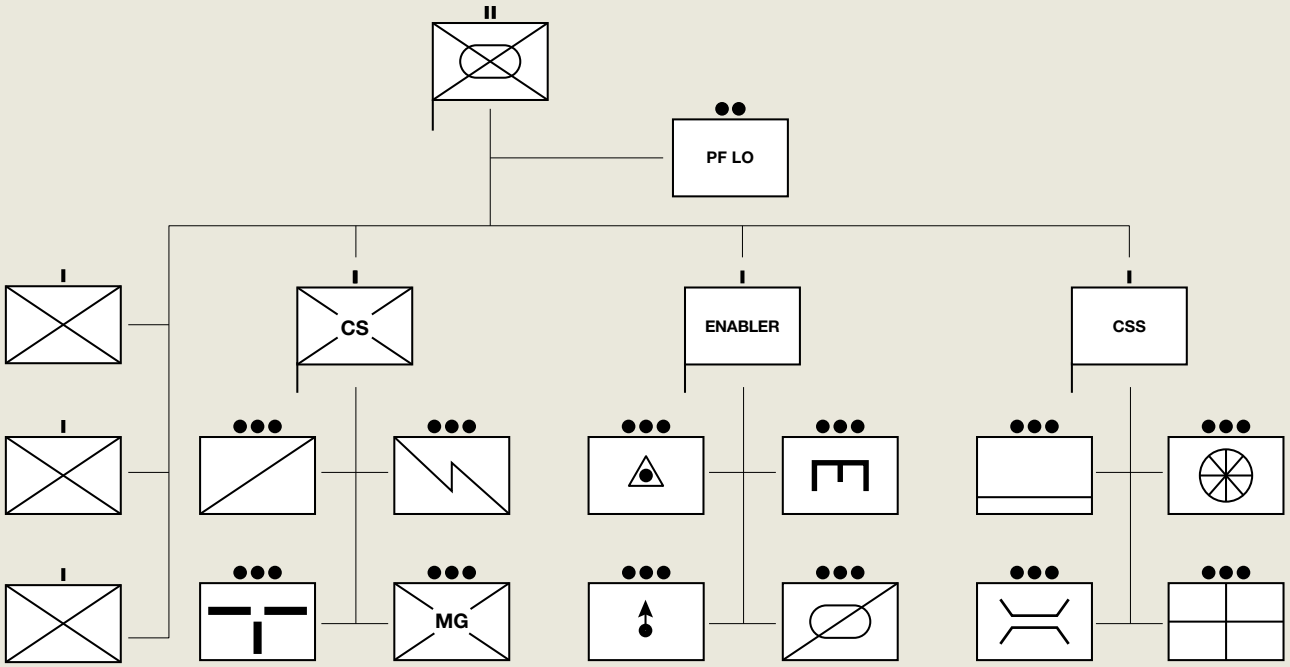
Security-force capacity-building units need to be able to operate across a spectrum of tasks depending on the needs of the partner force, the strategic aims to be accomplished, and the accepted risk tolerance. This

partner force needs, monitor progress, develop long-term strategies for partners' forces to be effective independently, and maintain good relationships. To achieve that, I would recommend that maintaining a persistent liaison team with the partner force be an essential component of SFCB units.

Though individual SFCB units could vary in structure in order to meet the needs of their partner force and their own FG requirements, I generally see them retaining the number of NCOs and officers present in a normal infantry battalion (or company) while seeing a reduction in soldiers. Those remaining soldiers would fill force protection, vehicle crew, demonstration, and general duty tasks. In addition to the

normal elements resident in an infantry battalion, SFCB units should house specialized skillsets and enablers in order for them to be more self-sufficient when deployed but also able to mentor partner forces across a range of capabilities.

What the structure of a CA SFCB unit might look like:



While I see SFCB units staying resident in the brigades, I think it also makes sense that they be affiliated with Div TCs in order to improve coordination for their FG role. Something that may be explored is basing satellite companies and/or platoons at training centres so that soldiers are not away from their families when not deployed and teaching on courses. For example, the RCR-affiliated SFCB unit could have companies or platoons based in Petawawa, Meaford, and Gagetown. Having elements affiliated with the Combat Training Centre,the Canadian Manoeuvre Training Centre, or the Canadian Army Advanced Warfare Centre could also be explored as potential ways to bolster their cadres.

CONCLUSION

The CA is already heavily involved in SFCB operations. By adopting task tailored SFCB units with a dual SFCB and FG role, the CA can become more effective at performing that function while also improving FG. Adopting SFCB units can also have additional positive effects on recruiting and retention by increasing the frequency of deployments but making them more manageable as well. Having designated SFCB/FG units will also make deployments and tasking to Div TCs and other training institutions more predictable. Conducting capacity-building operations is a way of keeping the Army engaged even when not directly involved in operations. Lastly, I predict that broadening the mentorship culture that is fostered through conducting SFCB will have a broader benefit on the CA as an institution that will create stronger soldiers.

ABOUT THE AUTHOR

Major Nicholas Fysh joined the Canadian Armed Forces in 2003 as a member of the Governor General's Foot Guards in Ottawa. He was commissioned in 2007 and component-transferred to the Regular Force in 2009, being posted as a platoon commander to 3rd Battalion, The Royal Canadian Regiment, where he served until 2012. From 2012 until 2014, he was posted to 5th Canadian Division Headquarters in Halifax as a staff officer. In 2013, he deployed on Op ATTENTION to Kabul, Afghanistan, as the mentor to the G3 at the Kabul Military Training Center. From 2014 to 2017, he was posted to 1st Battalion, The Royal Canadian Regiment, as the assistant operations officer and operations officer. Since 2017, he has been posted to Canadian Special Operations Forces Command Headquarters in Ottawa. Major Fysh holds a bachelor's degree in political science from Carleton University.

Source: Department of National Defence

A Canadian Armed Forces member mentors Forces armées nigériennes members as they build trenches during Operation NABERIUS 2017 in Nigeria. (Photo: Op NABERIUS 1702)

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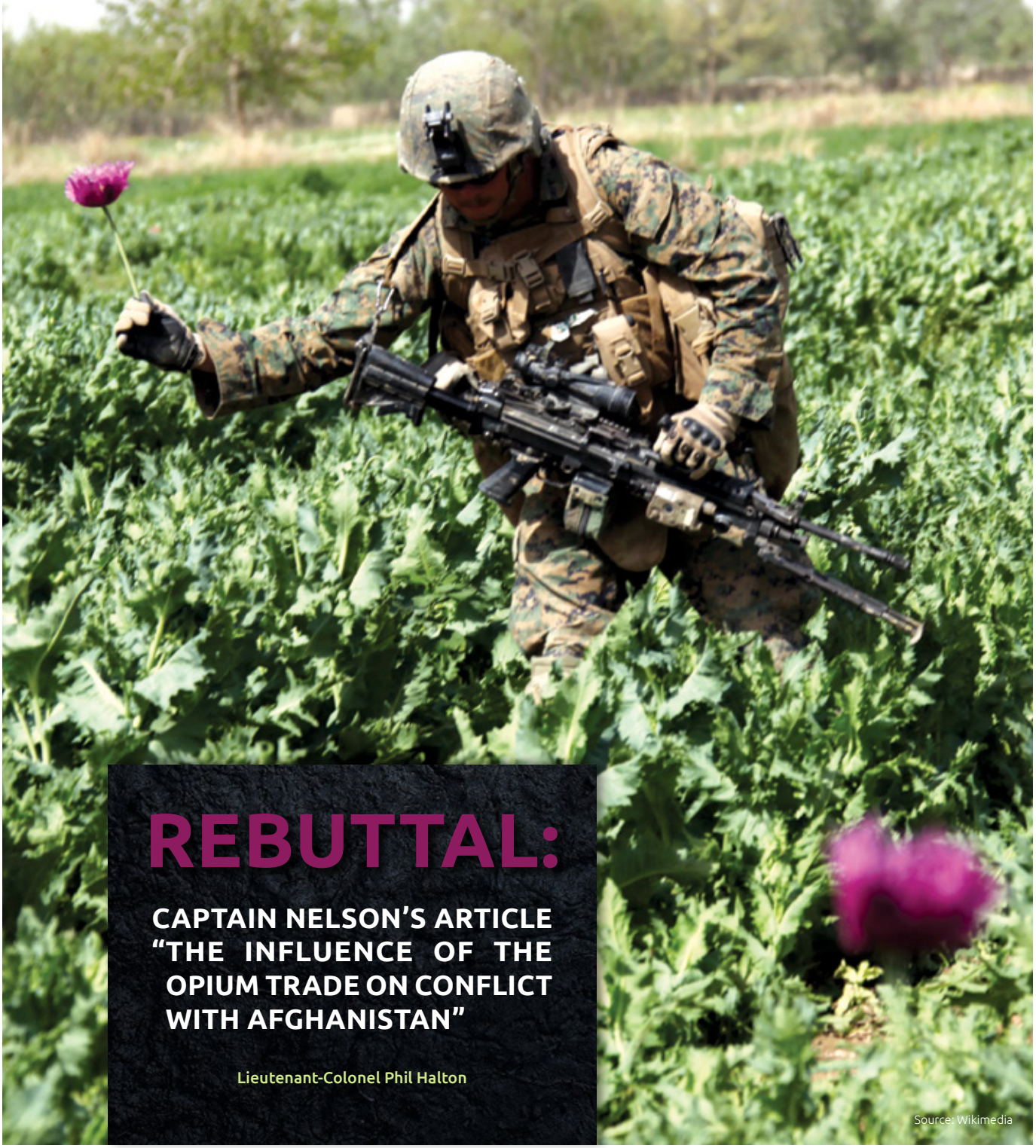
Source: Department of National Defence

A Canadian Armed Forces physician assistant trains members of the Forces armées nigériennes how to provide tactical combat casualty care during Operation NABERIUS 2017 in Nigeria. (Photo: Op NABERIUS 1702)



REBUTTAL:

CAPTAIN NELSON'S ARTICLE "THE INFLUENCE OF THE OPIUM TRADE ON CONFLICT WITH AFGHANISTAN"

Lieutenant-Colonel Phil Halton

Source: Wikimedia

United States Marine Corps Lance Corporal Anthony Duncan, a M249 Squad Automatic Weapon gunner with 2nd Platoon, Company I, Battalion Landing Team 3/8, Regimental Combat Team 8, picks a poppy while returning from a security patrol through a poppy field in Helmand Province's Green Zone, west of the Nahr-e Saraj Canal.

I read Captain Nelson's recent article, "The Influence of the Opium Trade on Conflict with Afghanistan," with interest, though in doing so I noted a number of points with which I take issue. Captain Nelson has done a good job of looking broadly at the issues surrounding the opium trade and is right to point out that both opium and marijuana are natural resources that are key to the Afghan economy. However, Captain Nelson's statement that "significant Afghan participation in the global [opium] market began only after the Soviet occupation in 1979" is entirely false. Opium in Afghanistan cannot truthfully be seen as a purely illicit commodity produced outside of central control, or as important only during the period since 1979. But far from being his own error, this is one that he has repeated from the work of many other authors.

Beginning in the late 19th century, both hashish and opium were legal products in Afghanistan and were heavily taxed by the central government. There were two major markets for both products, besides the domestic one: Persia and British India. Persia had a large number of domestic users who consumed as much opium as Afghanistan could produce. British India was itself an opium producer for the Chinese market, but smuggled Afghan opium was purchased at prices well below those charged for what could be produced in India, then sold onward to China for immense profit. The legal trade in opium in British India did not end completely until 1935.

Afghanistan's opium reached a new market, the United States, during the Second World War, as the need for painkillers increased dramatically. The United States was cut off from the world's largest producers of morphine, all of which were in Germany and used opium tar grown in Turkey. That trade was conducted by a government-run corporation whose major shareholders were the country's elite families with royal connections, and it provided much-needed tax revenue for the government of Zahir Shah.

After the war, the United States insisted that Afghanistan curb opium production in order to access American aid money, but although laws were passed by the Afghan government, they were not enforced. The government continued to tax opium and hashish, which was primarily exported to Persia, while paying lip service to the U.S.'s demands and receiving its aid. Where the government did make a show of enforcement efforts was in isolated regions inhabited by ethnic minorities whose support of the government was unimportant to the Pashtun monarchy.

By the 1960s and 1970s, Afghanistan was famous for the quality of its hashish and opium, drawing drug tourists along the "Hippie Trail." Special teahouses that catered exclusively to hashish smokers, called *saqikhana*, became both popular and very profitable, much like Dutch coffeeshops today. By the early 1970s, Afghan narcotics were reaching the United States in large quantities through criminal groups such as the "Brotherhood of Eternal Love."

In the past, many farmers in Afghanistan had planted opium as a cash crop on small plots of marginal land to supplement their incomes. Increasing access to cheap food on the international markets from the 1970s to the present day has made it uneconomical to grow food at subsistence levels, and much more logical to instead grow a cash crop such as opium. The explosion of production in the 1980s and 1990s came about as enforcement efforts dropped dramatically, and large sections of irrigated land (such as those in Helmand Province created by USAID in the 1960s) were converted to opium production.

The Taliban's attitude to the narcotics trade can be seen as an acceptance of the status quo in agricultural areas, where eradicating opium production would spell economic and therefore political disaster. Much like previous governments, they used it as an important source of tax revenue rather than becoming involved in the production themselves, as they did with all other agricultural products. The Taliban's highly successful efforts at stopping the narcotics trade in 2001—much more effective than those of any Afghan government before or since—were likely undertaken because only at that time did they have the political control to do so in the face of opposition from the population. I believe that the religious and ideological basis for the opium ban professed by the Taliban should be taken at face value, although the truth of the matter will never be clearly discerned.

The total amount of opium produced in Afghanistan in 2018 was estimated to be 6,700 tonnes, reduced from the 2017 peak of 9,000 tonnes due to drought. More tellingly, the number of hectares under cultivation has increased steadily since 2001, despite variations in the harvest caused by weather. This increase can't be blamed on the insurgency alone, as political actors of all stripes have increased their involvement in the trade as one of the few reliable cash crops available to be grown. Involvement in the narcotics trade is not a reliable indicator of whether an individual is pro- or anti-government, as the business is funding both sides of the political equation.

Captain Nelson does note the alleged involvement of a government figure (Ahmed Wali Karzai) in the drug trade, but fails to acknowledge the involvement of massive numbers of government officials. It would be wrong to suggest that the opium trade funds only the insurgency in Afghanistan—in fact it funds actors on both sides of the government/insurgent divide, and it contributes greatly to the economy as a whole. The hardiest opium crops, able to best withstand droughts, are grown on land irrigated by government-funded infrastructure projects. The value of the opium trade in Afghanistan is equivalent to about 10% of the country's entire GDP, exceeding the value of all other legal exports combined, as well as creating employment for hundreds of thousands of farm labourers who often rely on that work to supplement their earnings from subsistence farming on their own plots of land.

It is convenient for Western analysts to view those involved in the narcotics trade as opposing the government, but that is a false narrative that has led Western militaries to conduct countless operations against drug traffickers on behalf of competing ones.

It is also interesting to note that in the past decade a new narcotics trade has sprung up in Afghanistan, centred on the production of a methamphetamine known locally as *nakh* or *yakh*. It is produced using an indigenous shrub, *omani*, that had previously been used only as cheap fodder for domestic animals. Although there is little data available about the scale or geographic distribution of *nakh* production in Afghanistan, there is a wider methamphetamine trade in Southwest Asia and it is logical to assume that Afghanistan is connected to it as a producer and a consumer.

Captain Nelson should be commended for the effort he has made to produce an article for the *Canadian Army Journal* on a topic which is much discussed and little understood. For others interested in reading more about this subject, I would recommend the work of James Tharin Bradford, especially *Poppies, Politics and Power: Afghanistan and the Global History of Drugs and Diplomacy*.

ABOUT THE AUTHOR

Lieutenant-Colonel Phil Halton has been a member of the Directing Staff on the Primary Reserve Army Operations Course since 2016. In civilian life, he is a writer. His debut novel, *This Shall Be a House of Peace*, is set in Afghanistan and was published by Dundurn Press in 2019. His contrarian view of the history of Afghanistan, *Blood Washing Blood: Afghanistan's Hundred-Year War*, is forthcoming from Dundurn Press in 2020.

Source: Wikimedia

Source: Reuters

Source: Reuters

Building Partner Capacity in the Training Domain: AN OPPORTUNITY

Captain Michael Haslett

Source: LCol Melissa Ramessar, RCEME

Captain Haslett coaching Lebanese Armed Forces subject matter experts through the Analysis phase of the Canadian Forces Individual Training and Education System Quality Control Cycle.

International partners have come to value the Canadian Armed Forces' (CAF) ability to build partner capacity through direct support and engagement with their military assets. Capacity building (CB), which is described as supporting the security of other nations and their ability to contribute to security abroad, is one of the CAF's core missions as outlined in *Strong, Secure Engaged*.[1] This direction has drawn training development officers (TDO) into a variety of operating environments to perform a train-the-trainer function. To this end, Canadian soldiers in a wide array of trades and skillsets have deployed to export our ability and craft.

In some instances, this direct mentorship model has evolved into an appetite from our international partners for going beyond a train-the-trainer function that simply allows other forces to replicate our combat-related skillsets and manoeuvres. There is a trending desire from these forces to adopt our Systems Approach to Training (SAT) model to start building their own training framework. The SAT model is derived from Canadian Forces individual Training and Education System (CFITES), which is the guiding publication for designing and developing effective and efficient individual and collective training in the CAF. Our partners see the value in creating their own training system, and this is where the TDOs and the Canadian SAT model are becoming instrumental.

The Ukrainian and Lebanese Armed Forces (LAF) are two prime examples of partner forces that have begun to shift their request for Canadian support from a train-the-trainer model to a train-the-training-system model. I had the pleasure of being deployed to Lebanon from the fall of 2019 to the spring of 2020 on Operation IMPACT as part of a CB operation with the Lebanese Armed Forces.[2] I was tasked with the development of a Civil-Military Cooperation (CIMIC) Planner course, and also the enhancement of the Logistics Capability for the Lebanese Armed Forces. In both settings, my counterparts were extremely interested in our systematic approach to developing a course, from analyzing

Corporal Brenna Baverstock of the Winter Mobile Training Team conducts a snowshoe lesson for the soldiers of the Land Border Regiment in the Bcharre region of Lebanon on 17 February 2020.

Source: Combat Camera

Source: Combat Camera

Canadian Armed Forces instructors mentor members of the Land Border Regiments of the Lebanese Armed Forces in winter survival and the construction of snow shelters.

the requirements of the job to designing the best training program to help the member perform that job. There was so much interest in this approach that I found myself briefing senior Lebanese officers on the process that Canada uses to analyze, design and develop training, and not on the course development project that I was supporting, as one might expect. This resulted in an appetite for us to partner with the LAF to develop their own SAT that was modeled on CFITES. Lebanese Armed Forces leadership identified that their technical training had a gap between the theory being taught and their job requirements, which was impacting the effectiveness of their trained technicians. When the LAF were exposed to job and task based training, and the concept of a Military Employment structure (MES), they immediately saw the value of incorporating this methodology of analyzing job requirements in order to design relevant training. They started to see how this approach would create graduates that were prepared to perform specific job related tasks.

Source: Department of National Defence

The Canadian Training Assistance Team – Lebanon was recognized for the successful development and delivery of an intermediate civil–military cooperation course for the Lebanese Armed Forces.

This training function represents a distinct opportunity for the CAF to be more involved in capacity building around the world. Our training system and our TDOs, who are dedicated to advising and guiding this training system, are unique assets that some of our international partners do not possess. Where countries have previously sought our soldiering expertise, including things like combat first aid, female engagement teams, and other combat related functions, CFITES (or the system behind CFITES) is showing itself to be a desirable capability for our partners. Ukraine and Lebanon have experienced the effectiveness of our systematic training process and rigorous TDO capabilities that contribute to all steps of training development. This capability, partnered with the effectiveness of our skilled members who have been carrying out the train-the-trainer function for years, shows our partners that the correlation between a soldier's effectiveness and training that aligns with their job tasks is high. An effective training system that produces more highly qualified members is being viewed as an achievable goal by our counterparts.

The CAF have generally participated in direct mentorship and guidance in an effort to improve the capability of our foreign military counterparts. If the CAF's aspiration is to truly create more effective and self-sufficient partners, the training domain represents the most direct intervention to accomplish this. Not only does this present an opportunity for CAF global involvement and mentorship in order to strengthen international relations, but it also allows our partners to become better and more capable, which directly supports Canada's Defence Policy outlined in *Strong, Secure, Engaged*. Both the TDOs and the training system can be leveraged as a way to be involved and applicable in regions and settings we otherwise would not have an opportunity to support. Moving forward, as the CAF expand or introduce new CB operations, considerations should be made to include the training domain. The training domain represents CB in its truest form and provides an area of expertise that is in high demand and in which the CAF excel. The CAF have an opportunity to set ourselves apart by providing a niche service that can directly impact the military effectiveness of our partners, not just for the short term, but for generations to come.

ABOUT THE AUTHOR

Captain Michael Haslett has been a Training Development Officer since 2017, with postings to the Canadian Defence Academy, the Peace Support Training Centre, and the Canadian Manoeuvre Training Centre Detachment Kingston. Captain Haslett deployed on Operation IMPACT for five months in September 2019 to Beirut, Lebanon. The Branch was stood up in the 1980s as a response to the CAF identifying a need for more effective and efficient training of its members. Since then, TDOs have been employed throughout CAF Training Establishments, Operational and Strategic Headquarters, projects and a variety of expeditionary operations to advise on the CFITES.[3]

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Mobile Warfare for Africa: On the Successful Conduct of Wars in Africa and Beyond – Lessons Learned from the South African Border War

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DE VRIES, Roland, Camille BURGER, and Willem STEENKAMP. Warwick, UK: Helion & Company, 2017, 388 pages, photos/maps: 73/42.
ISBN: 978-1-912174-08-9

Review by Major (Retired) Chris Buckham, CD

"*Si vis pacem para bellum*—If you want peace, prepare for war." That was the foundation upon which the South African Defence Force (SADF) was developed in order to counter the threats manifesting themselves throughout Southern Africa. The authors of this work (which was originally published in 1987 and reproduced in 2018) have all been involved in the historical analysis and doctrinal development of the SADF, none more so than Major General (Ret'd) Roland de Vries, widely considered to be the father of the SADF's bush war doctrine. The degree of practical, hands-on experience informing this work—and the extent to which additional primary sources were tapped, ranging from senior German Afrika Korps officers, African officers from across the continent, and senior British and African Union security officials—affirms the depth of analysis and breadth of experience that has gone into the study.

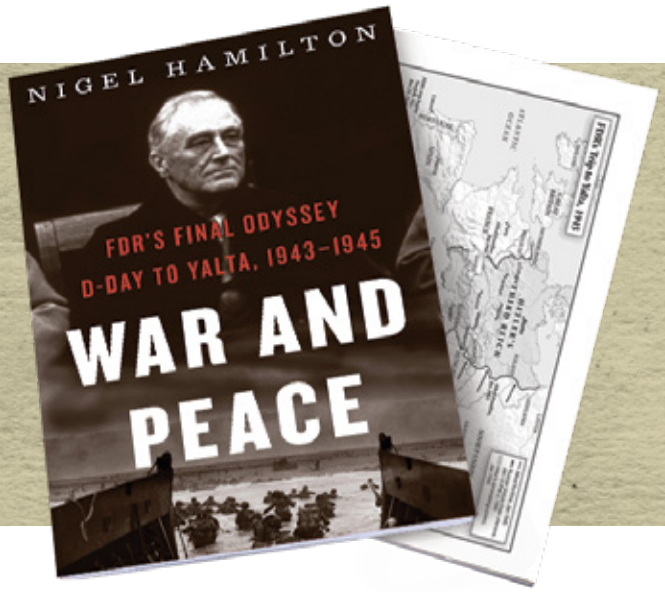
Above all, this is a teaching and information manual. The SADF took part in numerous operations involving actions against both conventional militaries and asymmetric/guerilla-style forces. Its experiences, captured in this book, covered the spectrum and included everything from small-unit, deep penetration operations, brigade-level conventional multi-arms engagements, "hearts and minds" tasks, and multi-element interdiction involving combinations of land forces and fixed and rotary wing assets.

The narrative culminates in a series of case studies that provide context and a concrete application of the lessons gleaned from the Bush War. They are all identically structured in order to facilitate understanding, with detailed maps and photographs. Each case study is directly tied to a chapter in the main text in order to deliver a real life example of the concepts being provided; all are standalone and may be reviewed independently or in conjunction with the larger narrative.

Throughout the book, the Angolan Bush War (also known as the South African Border War), is referenced by the authors to provide foundational context to their perspectives. Fought between 1966 and 1989, it extended across modern day Angola, Zambia and Namibia and involved kinetic and asymmetric elements of warfare and clashes that ranged from low to high intensity. From that laboratory of African conflict came many of the lessons that were applied in other theatres and regions. Drawing upon those lessons, the authors provide an in-depth explanation of not only the development and application of tactics and doctrine but also how the lessons were applied to the development of equipment and, more specifically, the vehicles and weapons systems that best suited the varied African environments.

Source: Willem Steenkamp

Helion has produced a book of the highest quality, and the addition of a separately included "atlas" book enables the reader to follow the case studies and lessons learned with great ease. This work is the culmination of decades of hard learned lessons in the harshest of classrooms: the battlefield. Not only is it an engaging and fascinating read but it also serves as an outstanding treatise on methods of combat that will stand any professional soldier, historian or casual militarist in good stead regardless of their geographic location, element or experience level.



WAR AND PEACE: FDR's Final Odyssey: D-Day to Yalta, 1943–1945

BIBLIOGRAPHICAL INFORMATION:
HAMILTON, Nigel. New York: Houghton Mifflin, 2019, 578 pages.
ISBN: 978-0358299226

Reviewed by Lieutenant-Colonel Edward L. Underhill, CD, Canadian Army Interoperability Co-ordinator, Canadian Army Land Warfare Centre

By any standard, Franklin Delano Roosevelt (FDR), the 32nd President of the United States of America, ranks as one of the most important figures in U.S. history. Whether on the domestic stage implementing his New Deal to steer the U.S. through the Great Depression or on the international stage exercising leadership in forging the Allied alliance against fascism, FDR's influence upon events of the mid-20th century is incontrovertible. Nigel Hamilton emphatically makes this case in the third and final volume of his trilogy about the FDR presidency.

The author is well established in the field, having published multi-volume biographies of Field Marshal Bernard Montgomery and U.S. presidents John F. Kennedy and William Jefferson Clinton. His latest effort focuses on FDR during the war years.

The book highlights the political–strategic level of war, referring to specific military events (such as operations SHINGLE, BAGRATION and OVERLORD) as necessary context to allow the reader to gain insight into the political decision making that preceded them. The volume is well paced, beginning in the fall of 1943 when FDR was preparing to travel to Tehran for the first meeting between the Allied principals—in particular, the first with Stalin. It gives nearly equal space to the signature Allied conferences of the period, tracing a path from Tehran to Quebec City to the final meeting at Yalta and the decline and death of FDR shortly thereafter.

The strength of this volume lies in its engaging style and its carefully annotated primary material, which combine to produce a pleasant read. Roosevelt's advisors, doctors, translators and military assistants all kept detailed diaries, and Hamilton uses that material adeptly to create a compelling picture of an engaged and confident Commander in Chief. While capturing the hopes and misgivings of key advisors, both U.S. and British, Hamilton weaves an entirely genuine narrative of FDR's leadership, willpower and lasting influence upon the course of Allied victory. Regrettably, given the secrecy surrounding the Soviet archives and the limited access to them, the view of FDR's relationship with Stalin is unavoidably one-sided. However, the author may justifiably be forgiven for that lack of detail.

The volume opens with FDR travelling first to Casablanca and then onward to Cairo, where he met with U.S. and British military advisors in advance of their meeting with Stalin at Tehran. The U.S., recognizing the degree of suffering that the Soviets had absorbed, were determined to commit the western Allies to a second front. Despite persistent resistance from Churchill, who was still hoping to pull off an alternative to D-Day in the eastern Mediterranean, FDR convinced the British leader to "state formally his conversion to OVERLOAD and its timetable" and gained Stalin's commitment to coordinate the timing of a new Soviet offensive on the Eastern front. When he left Tehran, FDR was at his strongest politically within the Allied partnership.

Indeed, this strengthened position empowered FDR to tackle not only the tendentious issue of who was to command OVERLORD, but to ensure that the issue of a European theatre under one unified command was settled. This was hardly a trivial achievement, as there were both domestic and Allied issues to confront. Franklin Delano Roosevelt faced the dilemma of choosing between General George Marshall, who was the architect of the rapid growth of the U.S. Army but crucially lacked field command experience, and General Dwight D. Eisenhower, a commander with recent multinational command experience who was also popular and politically astute. Perhaps more importantly, there were the British to consider. Having borne the brunt of casualties in the West and in North Africa, the British may well have

been justified in promoting their choice to lead OVERLORD, while simultaneously advocating strongly that they should retain command in a separate Mediterranean theatre. Franklin Delano Roosevelt's singular ability to convince the British, eventually, regarding the appointment of a Supreme Allied Commander Europe meant that the detailed coordination of all operations on the continent would fall under General Eisenhower.

It is generally accepted that Roosevelt was not at all well in the final two years of his life, and his travel to Tehran had taken a toll. Suffering from the stress of the trip and an increasingly debilitating heart condition, FDR returned to the U.S. exhausted. Hamilton is at his best here, describing in great detail the concern of the people around the President about his declining health. Yet FDR still proved able to lead through sheer force of personality and mental strength.

By late summer 1944, with the success of OVERLORD assured, the British and the U.S. agreed to meet again in Quebec City to discuss the post-war political settlement in Europe. Ahead of the conference, FDR's health continued to be precarious, so much so that his host, Prime Minister Mackenzie King, described a figure "much thinner in the face and quite drawn," with "eyes quite weary, ... like those of a dying dog." In the meantime, Churchill persisted in playing the amateur strategist, promoting possible additional Allied operations in the Mediterranean, including landings in the vicinity of Trieste for the purpose of breaking the deadlock north of Rome. Franklin Delano Roosevelt demurred, insisting that the Allied effort remain focused on liberating France and the Low Countries as a prelude to crossing the Rhine.

It was at the second Quebec Conference, however, as the subject of the "treatment of Germany and the Germans" was addressed, that FDR stumbled. With both the British and his own Secretary of State advocating for a managed economic recovery within a demilitarized Germany, FDR allowed his Treasury Secretary, Henry Morgenthau, to introduce his economically punitive plan. To propose that Germany be reduced to a pre-industrial 18th-century agrarian base was not only a gift to Nazi propagandists; it flew in the face of what his own State Department was recommending and was of course opposed by the British. Such was the decline in his physical and mental health that, as Hamilton notes, "The President of the United States was no longer really fit to carry out his constitutional role as commander in chief." Indeed, Secretary Stimson recorded that FDR had had no recollection of endorsing the Morgenthau Plan. By the end of the Quebec Conference, FDR was at his lowest, lacking both the strength to carry out complex negotiations and the mental flexibility to understand the implications of adopting the post-war plan.

By early February 1945, a clearly ailing President, who had somehow mustered the energy to win an unprecedented fourth term, was ready to meet one last time with his Allied counterparts. The choice of Yalta, in the Soviet Crimea, was calculated to appeal to Stalin's fear of travelling abroad. Roosevelt wanted the Soviets to pledge to enter the war against Japan, and he also sought to secure their commitment to a post-war United Nations. The British, having separately entered into an agreement with the Soviets on "Spheres of Influence," focused on the promulgation of a Declaration on Liberated Europe. The Soviets had entered the conference in a position of strength, especially in light of their agreement with the British on influence in Europe, and now felt strong enough to dictate terms.

Franklin Delano Roosevelt, despite being offered the position of conference host, was by this point "too weak to do more than follow the gist of conversation" and rarely able to offer detailed comments. He returned to the U.S. exhausted and showing signs of heart failure. As Hamilton notes, perhaps FDR should have taken the opportunity then to resign. As Commander in Chief, he had little left to accomplish. His signal achievements included wrestling stubborn allies into a common strategy, winning over the Soviets to his post-war plans and, of course, thoroughly defeating the Nazi threat.

This volume is not without its weaknesses, chief among them a nearly constant and somewhat distracting disparagement of Churchill which does little to elevate an argument in favour of FDR. The author forthrightly warns the reader that, although he admires Sir Winston Churchill, he does "not think it unfair to his memory … to correct the record," and he devotes considerable space in this volume to critiquing the British wartime leader. Indeed, the author chooses language especially calculated to place both Churchill and his principal military advisors in the worst light while praising their U.S. counterparts. While not sparing the British from perhaps well-deserved criticism, the author is entirely too forgiving of the less than stellar performance of a relatively untested U.S. Army engaged against the Axis for the first time during the same period. This choice of tone and omission detracts from the author's purported aim of giving an "account of the war's military prosecution from President Roosevelt's perspective."

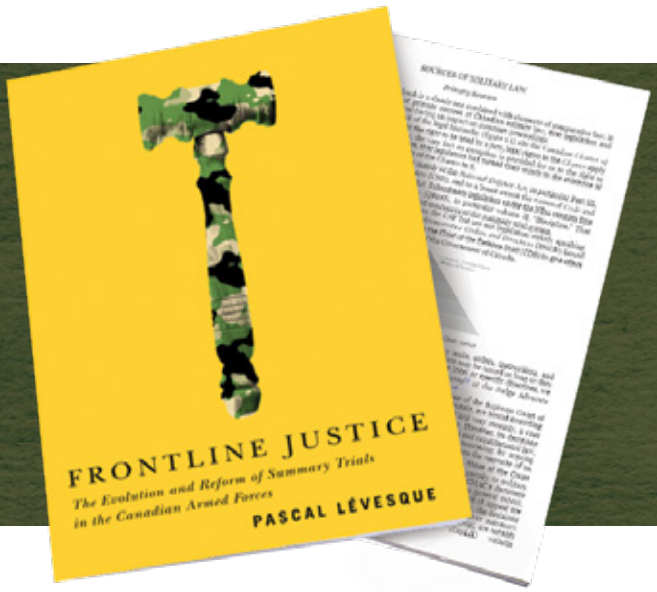
Curiously, although the United States was at war in two theatres, the volume treats the Pacific Theatre as almost an afterthought, perhaps in part because there was precious little requirement for the U.S. to negotiate grand strategy with any partner in that theatre. Franklin Delano Roosevelt is portrayed as being a largely passive participant at the Honolulu Conference in 1944, while Admiral Nimitz and General MacArthur proposed differing paths to defeat the Japanese Empire. Even more curiously, the section reads as a diversion from his domestic re-election campaign set against his continued ill health, somewhat undermining the overall thesis of an engaged Commander in Chief.

Source: www.mprnews.org

Nor is it easy to reconcile the picture painted by Hamilton of FDR as Commander in Chief with the seeming lack of preparation for the inevitable handover to his Vice President. By January 1945 it was clear to most of FDR's closest advisors and confidants that he would not live out the year, and yet there is little to suggest that he did much to prepare his successor. However, the volume offers no summary of his legacy and barely acknowledges the issues he left for his successor to deal with.

Still, and notwithstanding what amount to minor omissions, *War and Peace: FDR's Final Odyssey* is a detailed and well-written book, offering the reader valuable insight into the complexities and challenges of a Commander in Chief at war, as well as the toll taken on the man who assumed the mantle of leadership. Hamilton succeeds unequivocally in conveying just how influential FDR was among the Allied leaders, and he offers an engaging portrayal of a Commander in Chief at war.

Source : www.trumanlibrary.gov



Frontline Justice: The Evolution and Reform of Summary Trials in the Canadian Armed Forces

BIBLIOGRAPHICAL INFORMATION:
LÉVESQUE, Pascal. Montreal and Kingston:
McGill-Queen's University Press, 2020, 296 pages.
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The passing of Bill C-77[1] in June 2019 has raised concerns in the legal and military communities.[2] The reform has left the Canadian Armed Forces (CAF)'s summary trial (ST) system in a state of uncertainty, vulnerable to a constitutional challenge. No comprehensive study was conducted prior to the bill's adoption and passing, and it is silent on several important issues, notably the right to legal advice and representation. It also fails to provide adequate safeguards to protect basic principles of fundamental justice as guaranteed by the Canadian Charter of Rights and Freedoms.[3]

In *Frontline Justice*, Dr. Pascal Lévesque portrays the evolution of the CAF's ST system, going back to medieval England to explain its basis, purpose, strengths and weaknesses, and examines our civilian criminal justice system (CCJS), other disciplinary regimes, and foreign jurisdictions' military justice systems to identify gaps in human rights protection measures. While acknowledging the promptness, simplicity, consistency and efficiency of STs, he argues that, given the existence of reasonable alternatives, those advantages are insufficient to justify STs' infringement on members' Charter legal rights. Cautioning that troops' perception of inequity could negatively impact unit cohesion and members' trust in the chain of command, he makes system improvement recommendations which would benefit the CAF by ensuring legal stability, shielding the ST system from a constitutional challenge and reconciling it with our modern views of military discipline, based on trust and esprit de corps.

Doctor Lévesque's fifteen years in the Office of the Judge Advocate General, where he served as a unit legal advisor, defence counsel and policy development advisor; his eleven years as a civilian litigator and legal counsel; and his time in teaching and academia give him both insight into and distance from the military institution, allowing him to perceive the benefits and challenges of the ST system from different stakeholders' perspectives. His clear writing, effective explanation of legal principles and mechanisms, definitions of key terms and synthesis of the ST process and internal policy and regulations allow the book to reach a diverse audience.

Doctor Lévesque explains that although STs do not have the same procedural safeguards as a civilian criminal trial, some of the potential consequences are comparable. Many *Code of Service Discipline*[4] offences are analogous to criminal offences; ST punishments such as fines constitute "true penal consequences." He thus submits that using the word "disciplinary" to refer to summary proceedings conceals their true criminal nature, as "disciplinary" has a different meaning in the civilian world (i.e. consequences are of an administrative nature when it comes to civilian professional bodies).

Dispelling a widespread myth, Doctor Lévesque states, "the simple fact that an individual has voluntarily joined the Canadian Armed Forces does not equate to a valid waiver of his or her legal rights guaranteed by the Charter."[5] He identifies potential breaches under sections 7, 11(d), and 15 in relation to the following aspect of the ST system, which are, in his opinion, not justifiable under the section 1 "*Oakes*" test:[6]

- insufficient legal assistance, violating the right to counsel;
- absence of a transcript and thus lack of adequate review and appeal processes and oversight;
- lack of independence and impartiality of decision makers due to potential conflicts of interest; and

- discriminatory treatment of members based on rank, including differing levels of procedural safeguards and available punishments.

As a solution, Doctor Lévesque puts forward a model based on balancing the competing interests of political control, human rights and operational needs. According to Lévesque, bringing the ST system in line with the CAF's shift towards self-discipline and professionalization requires giving precedence to human rights and adopting the following measures and guarantees: availability of adequate legal assistance, recorded proceedings, the right to appeal to a military judge, informed waiver when electing summary proceedings, elimination of unjustified rank distinction, and abandoning of summary jurisdiction over civilian criminal offences.

Doctor Lévesque criticizes Bill C-77, stating that, among other deficiencies, its labelling of summary proceedings as "disciplinary" rather than "criminal" is a mere change in terminology which does little to address gaps in procedural safeguards under the ST system and that, worse, its lowering of the onus of proof from the "beyond a reasonable doubt" criminal standard to the "balance of probabilities" standard further erodes accused members' rights. He posits that the way Bill C-77 was developed and adopted is problematic due to a lack of independent research and consultation, and he encourages close monitoring of upcoming regulations.[7]

In arriving at his conclusions and recommendations, Doctor Lévesque considers the dynamics of military life and the realities and challenges of service members of all ranks. Through fictional scenarios illustrating the tensions within the ST system, readers are asked to put themselves in the shoes of actors and participants in the system. Several hypothetical scenarios also raise novel questions. For example, Dr. Lévesque asks whether a partial or intermittent confinement to barracks or ship—what he calls "CB-light"—should be construed as a restriction or a deprivation of liberty.

Throughout the book, analogies serve to point out inconsistencies between the ST system and CCJS, as well as to contextualize military justice in relation to the broader civilian world. By dissecting the ST system and examining it under various lenses, Doctor Lévesque draws parallels to elements of the CCJS (particularly in areas where challenges may arise), generating a common language for innovation and giving the reader a fresh perspective on the ST system. For instance, he criticizes the system's assumptions that youth is linked to a higher propensity for contravening the law and that junior members need stronger punishment to instill discipline, explaining that this philosophy is inconsistent with that of the *Youth Criminal Justice Act*.[8] Other examples include his suggestion that being confined to barracks or ship may be comparable to a conditional sentence (commonly known as house arrest), and how certain factors come into play to encourage guilty pleas in the military justice system—a well-documented issue in the CCJS.

Doctor Lévesque's approach encompasses legal, practical and philosophical considerations. He combines his experience and insight with a comprehensive review and thorough analysis of relevant legislation, case law (including landmark Supreme Court of Canada and service tribunal decisions), administrative rules and regulations, and literature from leading domestic and international scholars. In assessing arguments put forward by proponents of changes in military justice (e.g. former Justice Gilles Létourneau and Colonel (Ret) Michel W. Drapeau in Canada; Eugene R. Fidell in the United States) and those who favour a more conservative approach (e.g. Mike Madden in Canada; Victor Davis Hanson in the United States), he plays devil's advocate for all sides of the debate.

Looking at other jurisdictions—namely the United Kingdom, New Zealand, France, Germany, the United States, Australia and Ireland—Dr. Lévesque observes that they either set apart disciplinary and criminal proceedings or increase protection for individual rights. It would be interesting to learn more about practical challenges at the level of day-to-day administration of justice, which could perhaps be accomplished through a collaborative anthology with subject-matter experts who could provide Dr. Lévesque's level of insight for their respective jurisdictions.

Doctor Lévesque also considers our federal correctional disciplinary system, the police disciplinary system in Ontario, and those of the Sûreté du Québec and the Royal Canadian Mounted Police. Like the military, they share a need to maintain and restore discipline efficiently. The inclusion of those systems was ambitious. However, relevant features are successfully isolated, with a focus on the following: the representation of police members at disciplinary hearings, which are recorded and can be reviewed and appealed, and which do not entail deprivation of liberty as a possible consequence; and the right of inmates to be represented at such hearings as well. In the latter case, hearings are recorded and conducted before an independent decision maker, and guilt must be proven beyond a reasonable doubt.

The book does not discuss in depth the investigative process, police powers or the service prison. However, as Dr. Lévesque points out, the latter is seldom used, and Bill C-77 removed detention from the summary proceeding sentencing toolbox. Also, most charges dealt with at the summary level stem from unit disciplinary investigations rather than from the Military Police or the Canadian Forces National Investigation Service. In considering the investigation stage and reception of evidence, he briefly touches upon potential search and seizure issues under section 8 of the Charter and the risks associated with commanding officers acting judicially or quasi-judicially and addresses the treatment of evidence in STs.

Source : www.thecourt.ca

A quick read, *Frontline Justice* provides convincing evidence and ample materials for continued reflection. It constitutes a welcome addition to the literature on military justice. Indeed, it serves not only as an "anatomy of a summary trial" crash course and comparative exercise, but also as a change catalyst and eye opener for scholars of military law, government officials, decision makers, and individual members of the CAF.

ENDNOTES

1. Bill C-77, *An Act to amend the National Defence Act and to make related and consequential amendments to other Acts*, 1st Sess, 42nd Parl, 2018 (as passed by the Senate 18 June 2019).

2. See, for instance, Letter from Ashley P. Dunn, CBA Military Law Section Chair (20 November 2018) online: <https://perma.cc/GJ9J-NYAN>.

3. *Canadian Charter of Rights and Freedoms*, Part I of the *Constitution Act*, 1982, being Schedule B to the *Canada Act 1982* (UK), 1982, c 11 (the "Charter").

4. *National Defence Act*, RSC 1985, c N-5, Part III.

5. Pascal Lévesque, *Frontline Justice* (Montreal and Kingston: McGill-Queen's University Press, 2020), 59.

6. *R v Oakes*, [1986] 1 SCR 103, 1986 CanLII 46 (SCC) [Oakes]; Two-step test to determine whether a limitation is justifiable: 1) Pressing and substantial objective; and 2) Proportionality (rational connection, minimal impairment, and proportionality between effects and objectives).

7. At the time of this review's writing in December 2020, we are still awaiting regulations. House debate and mentions can be read at Open Parliament, *Bill C-77 (Historical)*, online: Openparliament.ca <https://openparliament.ca/bills/42-1/C-77/?tab=mentions>.

8. *Youth Criminal Justice Act*, SC 2002, c 1.