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ADAPTING CANADIAN ARMY ORGANIZATIONAL DESIGN

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ADAPTING CANADIAN ARMY STRUCTURE

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ADAPTING CANADIAN ARMY STRUCTURE

Canadian Army (CA) structure has undergone considerable evolution in the post-World War II era, but it has not adapted fully to meet modern institutional and operational challenges. The CA's enduring strategy of generating multi-purpose, combat-effective forces, with a focus on land operations at the brigade and battle group levels, has survived experience across a variety of campaign themes in Germany, the Balkans, and Afghanistan. There are significant drivers for change, however. Recent operational commitments signal a shift away from the deployment of a single large Land Task Force (LTF) to one principal mission a time. Instead, the CA now generates multiple LTFs in support of smaller-scale missions concurrently, and this trend is expected to continue in the context of the *Strong, Secure, Engaged (SSE)* defence policy. Meanwhile, ongoing force development efforts perpetuate a trend toward the employment of smaller, more integrated tactical groups in land operations, and the Journey Project aims to create a more a more flexible employment construct that could fundamentally transform the current structural segregation of regular and reserve forces.

By increasing role specialization, optimizing forces for the deployment of smaller, tactically self-sufficient units, and integrating full- and part-time soldiers below unit level, the CA can better meet the demands of *SSE* and contemporary land operations, increase efficiency in force generation, and better leverage available human capital. This paper will identify inefficiencies in the CA's current structure and force generation model and highlight how it is misaligned with the Canadian Armed Forces' (CAF) current and expected operational mandate. Deductions related to force structure, readiness, and training will be grouped into three themes: role specialization, the alignment of

operational commitments and tactical grouping, and regular-reserve integration. The deductions will form the basis of a possible organizational model that should be examined further as part of the force development process.

ROLE SPECIALIZATION

The CA is organized, trained and equipped to generate multi-purpose, combat-effective forces, but land operations today require a more nuanced approach.¹ CAF operations are characterized by a bifurcation of focus between maintaining a credible land combat deterrent against state-based aggression and building partner capacity in low-threat security environments.² The current force generation approach prepares CA forces for a broad range of missions and contingencies but it requires significant investment in training and resources. The CA could reduce this investment by narrowing the scope of employment for respective operational formations and units, increasing efficiency in force generation while maintaining the CA's ability to achieve operational and tactical objectives. This section will examine the issue of role specialization from three perspectives: operational focus and training, equipment, and regional alignment. It will argue that the CA should implement a modest degree of role specialization.³

¹Canadian Army, "Canadian Army of Today," last modified 19 April 2018, <http://www.army-armee.forces.gc.ca/en/about-army/organization.page>.

²National Defence and the Canadian Armed Forces, "Operations Update – April 2018," last modified 11 April 2018, <http://www.forces.gc.ca/en/operations/update.page>; W.F. Seymour, Presentation, Joint Command and Staff Programme 44, Ottawa, ON, 14 February 2018. This bifurcation is evident in the current CAF operational mandate, with CA forces committed to NATO deterrence operations in Latvia and training missions in Ukraine, West Africa, and the Middle East. The Canadian Joint Operations Command campaign plan sees the CAF conducting operations to deter state-based aggression, defeat violent extremism and build partner capacity in strategically important areas of the globe.

³The term role specialization here refers to the type of missions and tasks a force is best suited to undertake. This discussion does not address the issue of contributing niche capabilities (like electronic warfare, or influence activities for example) to operations. Rather it intends to argue that LTFs with a mix of contemporary manoeuvre, combat support and service support capabilities should be organized, trained and equipped for specific campaign themes, missions and tasks.

Traditional assertions hold that training for general war adequately prepares military forces for any eventuality.⁴ Today, units and soldiers of the CA's three mechanized brigade groups (CMBGs) invest significant time and resources in foundation training that prepares them for operations across the spectrum of conflict. Foundation training in a combat context provides deploying forces with a baseline capability to conduct operations across the spectrum of conflict, but theatre and mission-specific skills are also essential to operational effectiveness.⁵ Deterrence operations against Russian aggression in Latvia require significant training in information operations, for example, and security force capacity building (SFCB) missions demand specific leadership and instructional skills.⁶ Therefore, units and soldiers preparing for named operations find themselves conducting weeks and months of additional theatre and mission-specific training (TMST) after they have been validated for operations during the year-long Road to High Readiness (RTHR).⁷ A degree of role specialization, with units and soldiers focusing on a narrower set of missions and tasks, could reduce the time and resources spent in training, and improve individual and collective preparedness for operations by focusing more on the skills specific to a particular mission.

⁴Jonathan Due, Nathan Finney and Joe Byerly, "Preparing Soldiers for Uncertainty," *Military Review* (January-February 2015): 26. Proponents of this assertion echo Clausewitz's observations that war is the most dangerous of all human activities, that chaos and uncertainty are enduring and that preparation to operate in the most dangerous of circumstances is critical for success.

⁵David E. Johnson *et al*, *Preparing and Training for the Full Spectrum of Military Challenges* (Santa Monica, CA: Rand, 2009), xix-xx.

⁶*Ibid.*, xxi-xxii. With respect to CAF operations in Eastern Europe, significant time was invested in preparing members to counter Russian information operations (according to members of the lead mounting units for Task Forces Latvia and Ukraine in 2017).

⁷S.C. Hetherington, *Comd CADTC Planning Guidance Collective Training (CT) 2018-2019* (Canadian Army Doctrine and Training Centre Headquarters: file 4500-1 (Army CT), 29 August 2017), 1-6. According to senior leaders in 2 CMBG, there was considerable frustration that lead mounting units for LTFs were still required to conduct extensive TMST before deploying, even after months of foundational training during the RTHR year. In some cases, those LTFs not deploying on the first operational rotation during the high-readiness year had to repeat critical validation activities like combat team-level live firing.

Recent operational experience and developments in allied force structures support this approach. The Canadian government and some of its allies have demonstrated a tendency to achieve their objectives by, with, and through partner forces, and this approach is likely to continue.⁸ Missions like the one in Latvia cater the CA's traditional general-purpose warfighting competency, but conventional forces are now relied on to conduct missions that were once the purview of special operations forces. These missions require unconventional unit structures and soldiers with above average maturity, cultural awareness and leadership skills.⁹ For example, significant restructuring and TMST was required to generate Operational Mentoring and Liaison Teams for operations in Afghanistan.¹⁰ The creation of United States (US) Army Security Force Assistance Brigades (SFABs) and British Army Specialist Infantry Battalions reflect an increase in the degree of specialization required for this type of role, and they offer an alternative approach to force generation without significant restructuring or additional training ahead of deployment.¹¹ More broadly, the British Army has divided its land forces into two divisions: one structured and trained to produce high-readiness combat forces, the other

⁸Justin Trudeau (speech, 2017 United Nations Peacekeeping Defence Ministerial Conference, Vancouver, Canada, 15 November 2017). The recent announcement of Canadian contributions to UN missions in the form of support to other troop contributing nations is a reflection of this tendency.

⁹S. Graham, "Canadian Army Managed Readiness Plan" (informal lecture, Canadian Forces College, Toronto, ON, 11 December 2017), with permission. Conventional CA forces have mentored and trained their Afghani and Ukrainian counterparts, and elements of 5 CMBG are set to assume responsibility for Operation *Naberius*, a mission that has been undertaken by Canadian special operations forces (SOF) to date.

¹⁰Jan Erik Haug, "The Operational Mentoring and Liaison Team Program as a Model for Assisting the Development of an Effective Afghan National Army" (Master's thesis, United States Army Command and General Staff College, 2009), 54-55. Canadian teams were generated from conventional infantry battalions and augmented with specialists from across the lead mounting formation.

¹¹C. Todd Lopez, "Security force assistance brigades to free BCTs from advise, assist mission," *Army.mil Worldwide News*, 18 May 2017, https://www.army.mil/article/188004/security_force_assistance_brigades_to_free_brigade_combat_teams_from_advise_assist_mission; Defence Committee, "Oral evidence: SDSR 2015 and the Army, HC 108," accessed 11 April 2018, <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/defence-committee/sdsr-2015-and-the-army/oral/34418.html>.

to fulfill deliberately-planned security and engagement tasks.¹² This approach allows formations to focus on specific tasks and training, but it retains a degree of general-purpose capability in both.

Specialized forces should also be equipped according to their respective operational roles to further reduce time and resources spent in force generation and improve skill focus. Today, multi-purpose CMBGs are each equipped with a broad range of equipment, from heavy armoured fighting vehicles to air-portable weapon systems, along with a plethora of ancillary equipment. Units and soldiers must expend considerable time and resources to train operators and maintain the equipment. In some cases units are assigned more equipment than they can operate within their respective manning levels, requiring soldiers to qualify on multiple platforms. In other cases, units are expected to maintain equipment regardless of whether the capability is one that will likely be used on operations.¹³ Decisions have been taken at the CA level, therefore, to divest certain capabilities or to put them in preservation, with units parking equipment and letting operator qualifications lapse.¹⁴ The breadth of equipment resident in each formation also requires large maintenance organizations with suitably qualified technicians and large stocks of spare parts to support it. Matching equipment to specific roles and rationalizing it with what units might actually use on operations could create

¹²British Army, *Transforming the British Army, July 2012* (London: The Stationery Office, 2012), 4-5. A third division, Force Troops Command, groups together the majority of the British Army's combat support and service support units.

¹³Comments based on author's experience. Anti-armour vehicles were abandoned in the Lord Strathcona's Horse (Royal Canadians) in order to focus on generating tank squadrons for operations, for example, and small numbers of Vehicle Technicians assigned recovery duties in Service Battalions are often expected to operate four to six types of recovery vehicles.

¹⁴A. Thomas, "EROC Preservation," email sent 2 May 2017. In 2017, 2 Combat Engineer Regiment staffed such a proposal to CA Headquarters to put its Expedient Route Opening Capability—a set of counter-improvised explosive device vehicles and equipment—into preservation. It was decided that the institution's renewed focus on traditional field engineering skills and the fleet's heavy maintenance bill made the fleet uneconomical.

further savings in force generation. It would reduce the training burden on units and soldiers, as well as the time and capabilities required to sustain it.

The CA has already adapted a degree of equipment specialization. Recognizing the high training and sustainment costs associated with spreading capabilities across each CMBG, the Leopard tank fleet and its associated armoured engineer and support capabilities are centred in 1 CMBG. This arrangement has been maintained despite the desire to maintain a balanced, cyclical approach to managing readiness and give each armoured regiment equal opportunity for experience.¹⁵ Equipment specialization is also common amongst allied armies. The British Army, for example, has grouped armoured, airborne, and protected mobility equipment into role-specialized formations.¹⁶ Other small armies, like the Royal Netherlands Army, follow a similar logic, with equipment capabilities specialized at the brigade level.¹⁷ In the comparatively small and structurally similar Australian Army, equipment specialization has actually increased with a recent decision to re-role general-purpose infantry battalions as either mechanized or motorized units.¹⁸

¹⁵James Malejczuk, “Force Development Brief to Annual Armour Corps Conference” (archived Director Land Force Development 2 presentation, 11 December 2017). The concentration of tank training, maintenance and infrastructure was the driving force behind the plan. Basing options for the now-cancelled Close Combat Vehicle fleet followed similar logic. Similarly, the plan to focus the Army’s airmobile capability in 2 CMBG was driven in part by the plan to base the new CH-147 fleet in Petawawa.

¹⁶British Army, *Transforming the British Army, July 2012...*, 5-7. Armour, armoured cavalry and armoured infantry equipment are grouped into the high-readiness, combat-oriented 3 Division, while protected vehicles and light role equipment are assigned to units into the engagement and security-oriented 1 Division. Parachute capabilities are centred in 16 Air Assault Brigade. Supporting units in Force Troops Command are grouped in brigade by arm or service, but they are each affiliated with a particular armoured infantry or Adaptable Force brigade and equipped accordingly.

¹⁷Royal Netherlands Army, “Royal Netherlands Army units,” last modified 12 October 2017, <https://english.defensie.nl/organisation/army/units>.

¹⁸Australian Army, “Combat Brigades,” last modified 15 June 2017, <https://www.army.gov.au/our-future/modernisation-projects/plan-beersheba/multi-role-combat-brigades>. Under the Plan BEERSHEBA modernization initiative, mechanized, motorized and light brigades were transformed into three multi-purpose Combat Brigades. The two infantry battalions in each brigade were standardized as light infantry units, with armoured personnel carriers and protected mobility vehicles transferred to the Armoured

The CA could increase its operational effectiveness even further by aligning its forces with global regions. Currently, most LTFs are generated from the same high-readiness CMBG during any particular year of the managed readiness cycle; however, some formations are better suited to certain tasks than others. The predominantly French-speaking elements of 5 CMBG, for example, have been tasked to generate LTFs for peace support operations in Haiti, and they are set to undertake an enduring SFCB mission in French-speaking West Africa. This modification disrupts the balanced, rotational approach to training and readiness, and it is not clear yet how the managed readiness plan will be adapted.¹⁹ Building on specialization by operational role, an alternative approach could see those forces focused on security and engagement tasks aligned with global regions that reflect the government's security and engagement priorities.

The CA has already institutionalized the benefits of regional alignment domestically, with its divisions and reserve brigade groups structured around well-recognized regional and provincial boundaries in order to facilitate aid to civil authorities and public engagement.²⁰ More recently, CA planners have considered options to align operational commitments with CMBGs by region, building on 5 CMBG's traditional alignment with missions in Haiti and West Africa. Beyond the obvious benefits of sending forces that can operate in the local language, the development of mission and theatre-specific experience in each formation could shorten preparation timelines,

Cavalry Regiments and Combat Service Support Battalions respectively. The decision was taken last year to re-role the infantry battalions in each brigade as mechanized and motorized units respectively.

¹⁹S. Graham, "Canadian Army Managed Readiness Plan"...

²⁰Canadian Army, "Bases and Units," last modified 9 April 2018, <http://www.army-armee.forces.gc.ca/en/about-army/bases-units.page>.

strengthen relationships in SFCB missions, and increase operational effectiveness.²¹ The value of regionally-aligned forces in SFCB has long been recognized by other armies. The US Army's Special Forces soldiers undergo extensive language and cultural training before being assigned to geographically-focused formations and the US Army has developed a system of regionally-aligned conventional Brigade Combat Teams (BCTs) to fulfill engagement and contingency response tasks.²² Brigades within the British Army's so-called Adaptable Force are also nominally responsible for operational tasks within specific sub-continental regions.²³

Arguments against role specialization within the CA are centred on its comparatively small size and its inability to generate forces for significant operational commitments without drawing on the entire force. The current approach of maintaining multi-purpose, combat-capable forces has served Canada well, with the CA adapting itself to the demands of different campaign themes in the post-World War II era.²⁴ Other small armies, like the Australian Army, have successfully adopted a similar approach, generating capable and credible forces that are ready to respond to contingencies and contribute effectively to coalition operations in a variety of roles.²⁵ Even the larger British and US Armies have been challenged to maintain the integrity of specialized forces amidst heavy operational demands. British Army contributions to NATO

²¹S. Graham, "Canadian Army Managed Readiness Plan,"...

²²Tom Clancy and John Gresham, *Special Forces...*, 147; M. Wade Markel *et al*, *A Preliminary Assessment of the Regionally Aligned Forces (RAF) Concept's Implications for Army Personnel Management* (Santa Monica, CA: Rand, 2015), 1-2.

²³Ministry of Defence, Freedom of Information Request 2016/06904/ 77392/16/03, July 2016. Brigades typically comprise a mix of two or three regular force infantry battalions and a regular light cavalry regiment, paired with a similar number of reserve units. There remains flexibility to assign tasks in one region to a non-affiliate formation.

²⁴Department of National Defence, *Future Force: Concepts for Future Army Capabilities* (Ottawa: DND Canada, 2003), 162-163.

²⁵Kane D. Wright, "The Lessons of Modularity in Informing Australian Army Transformation" (Master's thesis, United States Army Command and General Staff College, 2014), 14-15.

deterrence operations involve forces from both the heavy Reaction Force and the light Adaptable Force.²⁶ Meanwhile, recent US-led SFCB operations in Iraq were spearheaded by conventional air assault forces, and the new SFAB is accompanied in Afghanistan by two conventional BCTs adapted for the same role.²⁷ There are ongoing debates too around the issue of whether specialized forces are in fact more effective. In the United Kingdom, parliamentary review has questioned the effectiveness of the Army 2020 structure, suggesting that it may be less flexible and adaptable than maintaining identical, multi-role formations.²⁸

With its current structure and force generation model, the CA can generate forces that are indeed flexible and credible enough to meet a broad range of contingencies, giving the government options despite the CA's comparatively small size. On the surface, the approach is also more efficient: fewer forces are able to fulfill more tasks with comparatively little training and investment. In practice, however, the multi-purpose approach to force generation requires significant baseline *and* specialized training to meet today's operational demands, which diminishes its efficiency.²⁹ By opting for the flexibility of the multi-purpose approach, the CA also lacks the ability to

²⁶British Army, "Deployments—Baltics," accessed 11 April 2018, <https://www.army.mod.uk/deployments/baltics>.

²⁷Gary Volesky, and Roger Noble, "Theater Land Operations – Relevant Observations and Lessons from the Combined Joint Land Force Experience in Iraq," *Military Review*, Online Exclusive (June 2017): 1. Comments related to the SFAB were made by a senior US Army leader, who also expressed the view that partnering conventional and host-nation forces was a more effective approach to SFCB than the advise and assist approach.

²⁸House of Commons Defence Committee. *Future Army 2020* (London: The Stationery Office, 2014), 30. The core concern of the Committee was that the Army 2020 model was based primarily on constraints imposed by government on the size of the Army, and that it was not rigorously tested to determine its actual effectiveness and sustainability.

²⁹Throughout its history in Germany, the Balkans and Afghanistan, the CA contributed to one major campaign theme at a time, with the entire force focused on a particular mission and comparatively little effort required to fulfill residual tasks. As a multi-purpose force, it could adapt to various campaign themes but typically only contribute significantly to and focus itself on one campaign at a time. Today, the CA must contribute significantly to several operations across different campaign themes.

institutionalize competency in specific roles. While the larger, more specialized American and British forces retain the flexibility to revert to more generic tasks, multi-purpose CA forces cannot specialize without significant additional effort.³⁰

Clearly, the CA is not scaled or resourced to achieve the degree of specialization found in the US Army, or even the British Army. A truly multi-purpose force with a broad range of robust, specialized formations and units would be too expensive to maintain and politically untenable in Canada, and a move toward niche specialization on the other hand would sacrifice the CA's ability to respond to a broad range of contingencies.³¹ A modest degree of role specialization should be considered instead. The CA's existing operational forces should be split in two, with one element focused on generating robust, combat-capable forces optimized to respond quickly to contingencies overseas, and the other focused on generating LTFs for SFCB and other low-intensity security and engagement tasks, with an added responsibility of aid to civil authorities. Armoured fighting vehicles and heavy combat support equipment should be concentrated in the former element, with existing parachute-capable forces grouped together in their own formation. Meanwhile, the latter element should be equipped with protected vehicles and lighter equipment suitable for operations in low-intensity conflict. Formations of the latter force, focused on interacting with partner forces and the local population, should be assigned operational tasks in specific global regions to the greatest extent possible. The split would allow each respective force to save time and resources

³⁰Peter A. Wilson, John Gordon IV and David E. Johnson, "An Alternative Future Force: Building a Better Army," *Parameters* 33, no. 4 (Winter 2003): 31-32.

³¹P. Jones, and P. Lagassé, "Rhetoric versus reality: Canadian defence planning in a time of austerity," *Defense & Security Analysis* 28, no. 2 (June 2012): 140-143; Department of National Defence, *Canada's International Policy Statement – A Role of Pride and Influence in the World: DEFENCE* (Ottawa: DND Canada, 2005), 12-13.

and increase its operational competency by focusing itself on a narrower set of roles, missions, tasks and qualifications. Such a split in role could limit the CA's ability to sustain contributions of the scale generated for operations in Afghanistan without reversing the increase in specialization, but as the next section will highlight, this risk could be mitigated with a different approach to the scale of tactical grouping.

OPERATIONAL COMMITMENTS AND TACTICAL GROUPING

Currently, the CA focuses its effort on being able to generate large brigade and battle groups, with little integration of arms and services below the sub-unit level. This approach is misaligned, however, with ongoing operational commitments and the *SSE* defence policy. The CA routinely prepares forces to operate in large tactical groups during the RTHR, only to have LTFs undergo significant restructuring and reintegration in preparation for operations. This section will address the misalignment of operational commitments and tactical groupings in the context of *SSE* and "contribution warfare."³² It will also highlight the benefits of generating smaller LTFs and integrating arms and services into smaller tactical groups.

During operations in Afghanistan, each CMBG in turn was focused on generating and sustaining a single formation-level task force and a comparatively small residual force for minor contingencies and other small missions.³³ CMBGs today continue to build formation-level capability during the year-long RTHR but then restructure significantly to generate several smaller, bespoke LTFs of less than unit strength for two

³²Paul Johnston *et al*, "A Canadian Approach to Command at the Operational Level," *Canadian Military Journal* 14, no. 4 (Autumn 2014): 10. The term "contribution warfare" has been attributed to the current Chief of Defence Staff, General Jonathan Vance.

³³S. Graham, "Canadian Army Managed Readiness Plan"... CMBGs rotated every six months to generate the bulk of Task Force Afghanistan elements. CMBG headquarters formed the basis of the task force headquarters.

six-month rotations of two named operations and several other operational tasks during the high-readiness year. This approach creates significant organizational disruption. It also leaves little capacity left in the CMBG to respond quickly to a contingency with all four manoeuvre units engaged primarily in generating LTFs for named operations.³⁴ The *SSE* defence policy could put further strain on the CA's existing structure, with land forces committed on up to nine lines of operation concurrently.³⁵ With only four large manoeuvre units on which to base small, independent LTFs, and a lack of scalability and modularity in the combat and service support units, the CMBG is not optimized to meet current operational commitments, nor the potential scope of tasks foreseen in *SSE*.³⁶

The CA must accept that it will continue to make several small contributions to operations concurrently, and it should structure itself to generate a higher quantity of smaller LTFs for operations and high-readiness tasks at any given time.³⁷ Canada's "contribution warfare" approach to achieving strategic policy objectives is unlikely to

³⁴*Ibid.*; C. Mialkowski, "Re: eFP Rotation Plan," email sent 1 March 17. Comments supported by other 2 CMBG senior leaders' comments to the author. 2 CMBG conducted RTHR training in 2016 and 2017, culminating in a two month-long Brigade-level field training exercise. Once it entered the high-readiness year, however, 2 CMBG committed its four manoeuvre unit headquarters to generate small LTFs (200-450 personnel) for two rotations each of Task Forces Ukraine and Latvia. Once established, LTFs conducted months of pre-deployment activity. The reorganization of large units into small LTFs left many units in garrison without senior leadership or sufficient coherence to maintain a residual high-readiness force. The problem was exacerbated by the requirement to fill a plethora of individual officer and soldier positions within joint headquarters and support components for other CAF operations, like Operation *Impact*.

³⁵Department of National Defence, *Strong, Secure, Engaged: Canada's Defence Policy* (Ottawa: DND Canada, 2017), 81. In the *SSE* context, CA planning assumes a high-readiness CMBG must be prepared to deploy only four LTFs of 500-1500 personnel in strength concurrently; however, tasks in *SSE* involve only 500-1000 CAF personnel in total, of which a CA contribution will be a part. Small CA contributions will also be required in any line of operation for force protection and operational sustainment tasks.

³⁶By way of example, artillery and engineer units are optimized to deploy batteries and companies independently, but not troops without significant ad hoc reorganization. Likewise, the Service Battalion is not structured, manned, trained or equipped to generate multiple support groups of sub-unit size or smaller to sustain several unit-sized or smaller LTFs concurrently.

³⁷A.J. Dillon, "Recalibrating the Canadian Army's Force Generation Model" (Joint Command and Staff Programme Component Capabilities Service Paper, Canadian Forces College, 2018), 6.

change, barring a significant threat to national security.³⁸ The *SSE* policy affirms the government's desire to remain engaged in international defence and security affairs, and senior military leaders see CAF elements participating in multiple campaigns globally, to include CA elements building partner capacity and contributing to a credible land combat deterrent.³⁹ Echoing comments from several senior leaders, the CAF most effectively adds value to these campaigns by making small, sustainable contributions to multilateral coalition operations.⁴⁰ Allied land forces are also less concentrated than they were during operations in Iraq and Afghanistan, with smaller numbers of troops committed to an increasing number of missions. The British and Australian Armies, for example, routinely deploy several small, independent land force elements of less than unit strength concurrently.⁴¹

There are other advantages to optimizing the CA to operate in smaller tactical groups. LTFs like the one deployed to Afghanistan, require months to deploy. Large quantities of equipment and supplies must be shipped overseas, and such a force requires substantial infrastructure and a large support component deployed in-theatre to sustain it, much of which must be built up and sustained by the majority of the CAF's operational support capability. Plans to deploy the CA's main high-readiness task force assume a 90-day activation period and significant preparation in theatre before the task force can arrive.⁴² The substantial bulk and signature of large brigade and battle group-sized LTFs limit the CA's responsiveness and strategic utility, particularly in politically sensitive or

³⁸Paul Johnston *et al*, "A Canadian Approach to Command at the Operational Level,"..., 10.

³⁹Department of National Defence, *Strong, Secure, Engaged*..., 14.

⁴⁰Senior CAF leaders have made comments to this effect during several presentations to JCSP 44 students.

⁴¹British Army, "Operations and Deployments," accessed 11 April 2018, <https://www.army.mod.uk/deployments>; Australian Government Department of Defence, "Global Operations," accessed 11 April 2018, <http://defence.gov.au/Operations/>.

⁴²S. Graham, "Canadian Army Managed Readiness Plan,"...

domestically unpopular cases where a more discrete presence might be more appropriate.⁴³

Smaller LTFs are inherently easier to deploy quickly, they produce a smaller signature, and they are easier to sustain using existing host-nation or coalition infrastructure and support arrangements. CA deployments in Eastern Europe were initiated after substantially shorter activation periods, and those forces were able to fall in on existing infrastructure with comparatively small support components deployed in-theatre.⁴⁴ The French Army's approach in Mali in 2013 has also been praised as a model for rapid response by robust conventional forces. Small, self-sufficient tactical groups of a few hundred personnel each were able to deploy into theatre rapidly, begin operations almost immediately and sustain themselves with minimal support infrastructure.⁴⁵

A move towards smaller, more integrated tactical groupings could also make the CA more relevant in future land warfare. Integration of arms and services in the CA has followed an ongoing trend of integration at increasingly lower levels, surpassing it in some cases.⁴⁶ As regular forces were pared down to three CMBGs over the course of the Cold War, each became an independent tactical formation with its own integral combat,

⁴³Several senior CAF leaders have echoed these comments during presentations to JCSP 44 students, acknowledging the government's preference to use SOF to achieve policy objectives in recent years, in light of SOFs' responsiveness, light operational footprint and low profile.

⁴⁴F.G. Auld, *RCD Force Generation Warning Order – Operation Unifier Roto 5* (Headquarters Royal Canadian Dragoons: file 3500-1 (J5), 20 October 2017); M.C. Wright, *2 CMBG Force Generation Wng Order – eFP/Operation Reassurance Roto 10* (Headquarters 2 Canadian Mechanized Brigade Group: file 3350-1 (G5), 17 November 2017). Current LTFs deploy over a period of weeks instead of months and they require only small sub-sub-unit sized support elements (approximately 15 percent of the total LTF strength), compared to the unit-sized National Support Element required in Afghanistan (20-25 percent of total strength). The inefficiency of sustaining multiple LTFs concurrently has been mitigated by their relatively smaller support demand, the use of operational support hubs, and the ability of a smaller LTF to use existing host-nation and coalition support infrastructure.

⁴⁵Michael Shurkin, "What It Means to Be Expeditionary: A Look at the French Army in Africa," *Joint Force Quarterly* 82, no. 3 (October 2016): 78-79.

⁴⁶J.L. Granatstein, *Canada's Army: Waging War and Keeping the Peace* (Toronto: University of Toronto Press, 2002), 423.

combat support and service support capabilities.⁴⁷ The CA gained considerable experience operating independently at the battle group level in the Balkans, and even at the combat team and sub-sub-unit levels in Afghanistan.⁴⁸ In the years following operations in Afghanistan, however, emphasis has been placed on restoring the CA's ability to operate at the formation level, ignoring historical trends in arms integration.⁴⁹ It also ignores the comparatively smaller numbers of personnel required to conduct operations by, with, and through partner forces.⁵⁰

Other armies continue to develop their ability to operate in smaller, integrated tactical groups, albeit at different scales. Looking to the future, the US Army After Next and Objective Force programs, as well as the British Army's more recent Force 2035 initiative, have all concluded that smaller tactical groups with greater manoeuvrability and reduced signatures are critical to survival on an increasingly lethal battlefield.⁵¹ They echo the development of swarming tactics and the CA's Adaptive Disperse Operations concept, which emphasize the ability of small, integrated forces to generate combat power by rapidly aggregating.⁵² Fortunately, the CA is still well-postured to generate

⁴⁷It should be noted here that this discussion is focused on the grouping of arms and services at the tactical level. It recognizes that operational command, control and support capabilities in-theatre have been and remain centralized to maintain lines of communication with the strategic level in Canada.

⁴⁸Ian Hope, "Guest Editorial," *Canadian Army Journal* 10, no. 1 (Spring 2007): 5.

⁴⁹S.C. Hetherington, *Comd CADTC Planning Guidance Collective Training...*, 2/11.

⁵⁰National Defence and the Canadian Armed Forces, "Current operations list – Europe," last modified 30 April 2018, <http://www.forces.gc.ca/en/operations/current-list.page#details-panel-1424977816603-3>. The SFCB building mission in Ukraine involves approximately 200 personnel, whereas the NATO deterrence mission in Latvia involves approximately 450 personnel.

⁵¹Robert Scales, "Forecasting the Future of Warfare," *War on the Rocks*, 9 April 2018, <https://warontherocks.com/2018/04/forecasting-the-future-of-warfare>; Mark Milley (speech, Association of the United States Army Eisenhower Luncheon, Washington, D.C., 4 October 2016). "Cove Webinar – UK Conceptual Force (Land) 2035 – Colonel James Cook." YouTube video, 25:46. Posted by "The Cove," 8 November 2017, <https://www.youtube.com/watch?v=yPui8zC1YU8>. These concepts rely significantly on technological advancements and autonomous systems in particular; however, the deductions about manoeuvrability and survivability are valid regardless of whether future technologies are delivered.

⁵²Department of National Defence. *Land Operations 2021 Adaptive Dispersed Operations: The Force Employment Concept for the Army of Tomorrow* (Ottawa: DND Canada, 2007), 17-18; Justin Lynch, and Lauren Fish, "Soldier Swarm: New Ground Combat Tactics for the Era of Multi-Domain Battle," *Modern*

small integrated tactical groups. Although it strives to build capability at the formation level, realistic live fire training culminates at the combat team level and significant training time is still focused on the integration of tactical effects at the sub-sub-unit level.⁵³

There is substantial risk in focusing on generating smaller tactical groups. Degradation of the CA's institutional knowledge and warfighting competence at higher organizational levels could create a gap in readiness that limits the government's options to respond quickly to a major conflict. A readiness gap already exists in the CA, however, in terms of its ability to generate a large, robust combat force.⁵⁴ Doctrine and formal professional development courses prepare CA leaders to operate at the formation level, and CMBG and unit headquarters are validated to do so in simulation and field training exercises, but live fire collective training is limited to the combat team level, and significant gaps in manning and equipment serviceability exist in each formation.⁵⁵ It is doubtful that the CA could quickly mount a large combat force without significant force preparation and organizational disruption anyway.

It is also questionable that contributions of small tactical groups do in fact create operational value. Combat power generated at the combat team level is relatively insignificant in the context of major land combat operations against large enemy formations, and some analysts have argued that the impact of small SFCB missions is

War Institute, 5 April 2018, <https://mwi.usma.edu/soldier-swarm-new-ground-combat-tactics-era-multi-domain-battle>.

⁵³S.C. Hetherington, *Comd CADTC Planning Guidance Collective Training...*, A-2/4.

⁵⁴A.J. Dillon, "Recalibrating the Canadian Army's Force Generation Model," ..., 5.

⁵⁵*Ibid.*, 5; Department of National Defence, B-GL-300-000/FP-001, *Land Operations* (Ottawa: DND Canada, 2008), 1-6; Department of National Defence, *Strong, Secure, Engaged...*, 36. Notably, CA officers are still trained at length to operate in formation-level headquarters, and SSE still espouses the CA's ability generate combat forces at the CMBG level, even though its operational mandate requires smaller contributions of land forces. Manning and equipment serviceability gaps are widely acknowledged.

minimal.⁵⁶ These arguments hold true when applied to the utility of elements operating in isolation, but CA forces operate almost exclusively in coalition constructs, contributing to a larger aggregate effect. In many cases, the CA has even been lauded for the disproportionably large impact of its small contributions, owing to the quality of its training and the adaptability of its soldiers.⁵⁷

Structuring the CA to generate small, integrated tactical groups as a baseline for operational employment would increase the efficiency of the force generation process by reducing organizational disruption and focusing time and resources on training to the right level. It would also improve the CA's ability to deploy quickly and sustain itself overseas with significantly less support. To do so, the CA should structure its manoeuvre units with a headquarters and a core task element of roughly combat team strength, with the leadership and infrastructure available to augment the unit with additional sub- and sub-sub-units as required. As the basis of small LTFs, these units should be supported by scalable combat and service support elements generated by specialist units (from the same formation) and tailored for particular missions.⁵⁸ Formations already specialized by role and aligned with global and domestic regions could then focus on generating small

⁵⁶CA tactics follow a ratio of 3:1. The attacking force should have three times the combat power of the defender, meaning a combat team can attack a reinforced enemy sub-sub-unit and defend against an enemy battle group; Stephen Biddell, Julia Macdonald, and Ryan Baker, "Small footprint, small payoff: The military effectiveness of security force assistance," *Journal of Strategic Studies* 41, no. 1-2 (2018): 95.

⁵⁷P. Jones, and P. Lagassé, "Rhetoric versus reality: Canadian defence planning in a time of austerity,"..., 141.

⁵⁸A.J. Dillon, "Recalibrating the Canadian Army's Force Generation Model,"..., 6-7. This construct reflects core structure of the NATO Enhanced Forward Presence battle group in Latvia and the rough scale of the SFCB-focused LTF deployed to the Ukraine. A combat-oriented LTF would have a mechanized tank-infantry combat team at its core, while a light-role LTF of a similar size would be structured with several training teams and security elements. Although it may seem redundant to have a single core sub-unit reporting to a unit-level headquarters, this approach adds value by allowing the sub-unit commander to focus on tactical tasks, and the unit-level headquarters to support the core task element by integrating it with higher headquarters and coordinating support from enabling elements. It also gives a Canadian LTF the ability to assume command and control of partner forces, as is done with the Enhanced Forward Presence Battle Group in Latvia.

LTFs for named operations and high-readiness tasks. By reducing the rotational period from one year to six months, any one formation could sustain a high-readiness or deployed LTF with three to five small manoeuvre units each.⁵⁹ Sustaining the deployment of several smaller LTFs concurrently, generated by several role-specialized formations, would require considerable rebalancing of existing personnel and capabilities, and scaling the manoeuvre element's size upward to fulfill larger tasks would require considerable augmentation of any one unit's smaller baseline structure. These challenges will be addressed in the final section.

REGULAR-RESERVE INTEGRATION

Regular and reserve force integration has had a troubled past in the CA and ongoing effort to create synergy between the two faces significant challenges. CA regular and reserve forces remain mostly segregated at the formation level. Regular CMBGs generate the bulk of LTFs for international and domestic operations and reserve brigade groups provide only individual augmentation and small formed groups.⁶⁰ This section will examine challenges with past and current strategies for reserve force employment and how the Journey Project might enable changes to CA structure. It will argue that by integrating full- and part-time soldiers below the unit level, the CA can more gainfully employ its personnel and enable the specialization and rebalancing of capabilities described above.

⁵⁹Department of National Defence, *Canada First Defence Strategy* (Ottawa: DND Canada, 2008), 15. Experience in Afghanistan demonstrated that for every soldier deployed, another four are required in various stages of administration and training. Structurally, a minimum of three elements are required to maintain a cycle of reconstitution, training and deployment.

⁶⁰Daniel A. Doran, "Reports of the Auditor General of Canada – Canadian Army Reserve: The Missing Link," *Canadian Military Journal* 17, no. 4 (Autumn 2017): 69-70.

The CA has relied heavily on the Reserve Force in the past and it continues to today. Reservists have represented up to 20 percent of CA personnel employed in the Balkans and Afghanistan and they continue to fill a myriad of full-time positions in the CA's institutional establishment.⁶¹ Notwithstanding, past efforts at regular-reserve integration have not resulted in the degree of synergy sought by senior CAF leaders. Initiatives like *Total Force* and *Army of Tomorrow* sought to boost force generation output by further integrating the two components and partnering regular and reserve forces at the formation and sometimes unit levels. By limiting integration to these levels, however, they failed to overcome the distinct cultural differences of the two components and bridge gaps in communication and trust between them.⁶² Regular members often perceive reservists to be unreliable, for example, while reservists perceive that Regular Force leaders are ignorant to their employment limitations and exert undue control over them.⁶³ Successful regular-reserve integration has occurred more often at the individual, section and sub-sub-unit levels. Regular support staff members routinely integrate with reserve units, and individual reservists and small groups have successfully trained and deployed on operations with regular units.⁶⁴ Efforts to improve integration might therefore benefit from a structure in which regular and reserve forces are permanently or routinely grouped together at lower organizational levels than they have been before.

⁶¹National Defence and the Canadian Armed Forces, "Canada's reserve force," last modified 10 March 2017, <http://www.forces.gc.ca/en/about-reports-pubs-report-plan-priorities/2017-canadas-reserve-force.page>; National Defence and the Canadian Armed Forces, "Report on Transformation 2011," last modified 23 August 2016, <http://www.forces.gc.ca/en/about-reports-pubs/transformation-report-2011.page>.

⁶²Sean Collett, "Leadership Issues Facing Army Reserve Leaders in Total Force Transformation" (Master's thesis, Royal Roads University, 2006), 27-33.

⁶³C.A. Heilman, *Exercise Stalwart Guardian 2016 Post-Exercise Report* (Headquarters 2 Service Battalion: file 3350-1 (SLOO), August 2016). There was considerable skepticism amongst Reserve unit leaders that the training led by 2 CMBG would benefit participating members. Appropriate messaging was critical to success.

⁶⁴Matthew Sherlock-Hubbard, "After Afghanistan: The Canadian Army Reserve and the Challenges Ahead," *NATO Association of Canada*, 27 July 2016, <http://natoassociation.ca/moving-forward-the-canadian-army-reserve-and-the-challenges-ahead>.

Specific missions and tasks provide an alternative to high levels of integration between regular and reserve forces. In theory, by assigning each component distinct tasks, they can remain segregated structurally and administratively but still generate complimentary operational outputs. This approach rarely proves to be effective in practice, however. Reserve soldiers employed part-time are limited to comparatively few training days, and they retain a considerable degree of choice about participation in force generation activities and operations. They are also more geographically dispersed than their Regular Force counterparts and they must balance military employment with the demands of their civilian jobs or education programs.⁶⁵ These challenges reduce the overall readiness of reserve formations and units, and they limit their ability to assume tasks like domestic response, despite the establishment of specific structures like Territorial Battalion Groups and Arctic Response Company Groups. Instead, Immediate Response Units and follow-on forces from regular CMBGs typically provide the initial response to a request for assistance. Reserve participation is often limited to sub-unit strength and takes several days to mobilize.⁶⁶ These experiences confirm that reserve soldiers are better employed in tasks that are routine, predictable and lengthy enough to give them viable employment.

Ongoing efforts to assign specific roles and capabilities to the Reserve Force as part of the Strengthening the Army Reserve (StAR) initiative will also face considerable challenges. The initiative follows the successful operational employment of reserve elements in roles like force protection and convoy escort. These roles and others like

⁶⁵National Defence and the Canadian Armed Forces, "Canada's reserve force,"...

⁶⁶Senate, Standing Committee on National Security and Defence, *Emergency Preparedness in Canada Volume 1* (Ottawa: Senate, 2008), 10-17. Comments supported by author's observations during several domestic operations. A notable exception is the consistent contribution of the Canadian Rangers in providing response to local contingencies in Northern and isolated communities.

ceremonial duties require relatively little specialized training, making them a good fit for reserve units.⁶⁷ More specialized capabilities like infantry fire support, pioneers and light urban search and rescue will be more difficult to generate within the Reserve Force, however.⁶⁸ Even a modest capability in a specialized role will require a depth of manpower and technical skills that are unrealistic for the Reserve Force to sustain.⁶⁹ There is considerable skepticism amongst some CA leaders that this approach is achievable without putting strain on the Regular Force to mitigate Reserve Force gaps with qualified soldiers and instructors and materiel resources.⁷⁰

Allied armies face similar challenges integrating their regular and reserve forces. The British Army's latest model relies heavily on reserve augmentation, with regular and reserve units paired by role and function. Optimistic goals for reserve recruiting have not been met, however, and the plan suffers from the perennially low reliability of Army Reserve soldiers to commit to training and operations.⁷¹ The Australian Army faces similar challenges. Like the CA, it pairs regular and reserve forces at the formation level, with the expectation that a regular combat brigade will be reinforced by partnered reserve brigades during training and high-readiness periods.⁷² Meanwhile, US Army Reserve

⁶⁷Office of the Auditor General, *Report 5 – Canadian Army Reserve-National Defence* (Ottawa: OAG Canada, 2016), 5. Comments are supported by author's experience and anecdotal evidence. Combat Arms reservists integrated well into the National Support Element and adapted easily to static security tasks and convoy escort duties.

⁶⁸Department of National Defence, *Strong, Secure, Engaged...*, 69; P.F. Wynnyk, *Canadian Army (CA) Operation Order – Strengthening the Army Reserve (StAR) – Update* (Canadian Army Headquarters: file 3185 (DAS), 27 June 2017), G4-1/2-2/2.

⁶⁹Comments based on anecdotal evidence from a former CA Division Headquarters planner, who related the emerging challenges of generating up to 60 reserve soldiers to sustain a 12-man search and rescue team, in terms of finding the training and equipment resources, instructors and reservists committed to the task.

⁷⁰Comments based on anecdotal evidence from a CA Division Headquarters staff member responsible for the implementation of the StAR strategy.

⁷¹House of Commons Defence Committee. *Future Army 2020...*, 34-37.

⁷²Kane D. Wright, "The Lessons of Modularity in Informing Australian Army Transformation"..., 96-97.

units are assigned specific roles, missions and tasks, with the expectation that unit members will be required to deploy when they are mobilized. This system allows the US Army to employ its reserve forces more reliably, but readiness still suffers from limited training time and resources, and short mobilization timelines diminish unit effectiveness. The system can also create significant disruption in reservists' civilian employment, despite federal and state legislation that aims to protect their jobs.⁷³ Alternatives to the traditional segregation of regular and reserve forces should therefore be considered

The Journey Project offers a possible solution. It is envisaged that the component-based structure will give way to a more flexible and personalized approach to military employment. Over the span of their careers, CAF members could have some choice in deciding their degree of employability on operations and their availability for postings. They might also have the option to work full- or part-time.⁷⁴ With employment managed on an individual basis, the current segregation of formations and units by component could become irrelevant. Instead, formations and units could be structured to focus on specific roles and capabilities in the manner described above, and the balance of full- and part-time positions in each organization could be tailored to the degree of cohesion, technical specialization and readiness required. Units focused on generating LTFs for high-intensity contingency operations abroad, for example, could be comprised mainly of full-time soldiers. Meanwhile, units focused on deliberately planned, lower-intensity security and engagement tasks could be manned by a greater proportion of part-time soldiers who could commit to providing capability part-time and deploying on a case basis. The comparatively small size of LTFs proposed above would enable a

⁷³Gary C. Howard, "Reinventing the Army Reserve—Again" (Landpower essay, AUSA Institute of Land Warfare, 2004), 2-3.

⁷⁴N. Eldaoud (Presentation, Canadian Forces College, Toronto, ON, 30 November 2017).

rebalancing of full-time positions across role-specialized formations and units, giving each unit a reliable pool of full-time, deployable soldiers from which to generate forces for high-readiness tasks and named operations.

The Journey Project and rebalancing of Regular Force capabilities across the CA involve considerable risk. Critics of the project's vision question to the degree to which the CAF will be able to sustain its readiness and operational outputs without significant constraints imposed on individuals' freedom to decide their level of employability.⁷⁵

There might also be a loss of flexibility with full-time soldiers distributed across a greater number of units. Manning shortfalls and skill gaps could become more critical in units without the depth of a traditionally structured regular unit, and more organizational disruption might therefore be required to fill vacant positions or mitigate deficiencies in the number of part-time soldiers committed to training and deployments. It might also become more challenging to conduct training with skilled instructors and resources dispersed across more formations and units.

These risks can be mitigated, however. CAF members will be compensated in pay and career advancement according to their respective levels of employability, and incentives will promote full-time, unrestricted and deployable service. With appropriate incentives and limitations in place, a more flexible employment construct is expected to increase the retention and availability of members for operations, who might otherwise choose not to serve because of the rigidity of the current system.⁷⁶ It might also encourage the retention of individuals with extensive experience and expertise, who could be available to enable training without deploying. Closer integration of full- and

⁷⁵Some senior CAF leaders have expressed concern that the aspirations of the Journey Project vision might be unachievable without significant constraint and incremental implementation.

⁷⁶N. Eldaoud...

part-time soldiers below unit level would also help to break down cultural barriers that exist in the current model, and increase the potential for training and skill development amongst part-time soldiers. It is hoped that the new model will make better use of part-time members by employing them so as to generate full-time capability.⁷⁷

The component-based approach to employment has not served the CA well. By maintaining a reserve force that is only partially integrated with the regular component, the CA reaps only a small return on its investment in terms of actual operational capability. A greater degree of integration between full- and part-time soldiers, of the sort envisioned by the Journey Project, would allow the CA to more gainfully employ all of its members. Role-specialized formations and units should comprise a reliable core of full-time soldiers with the balance of full- and part-time soldiers tailored the unit's operational role and readiness level.

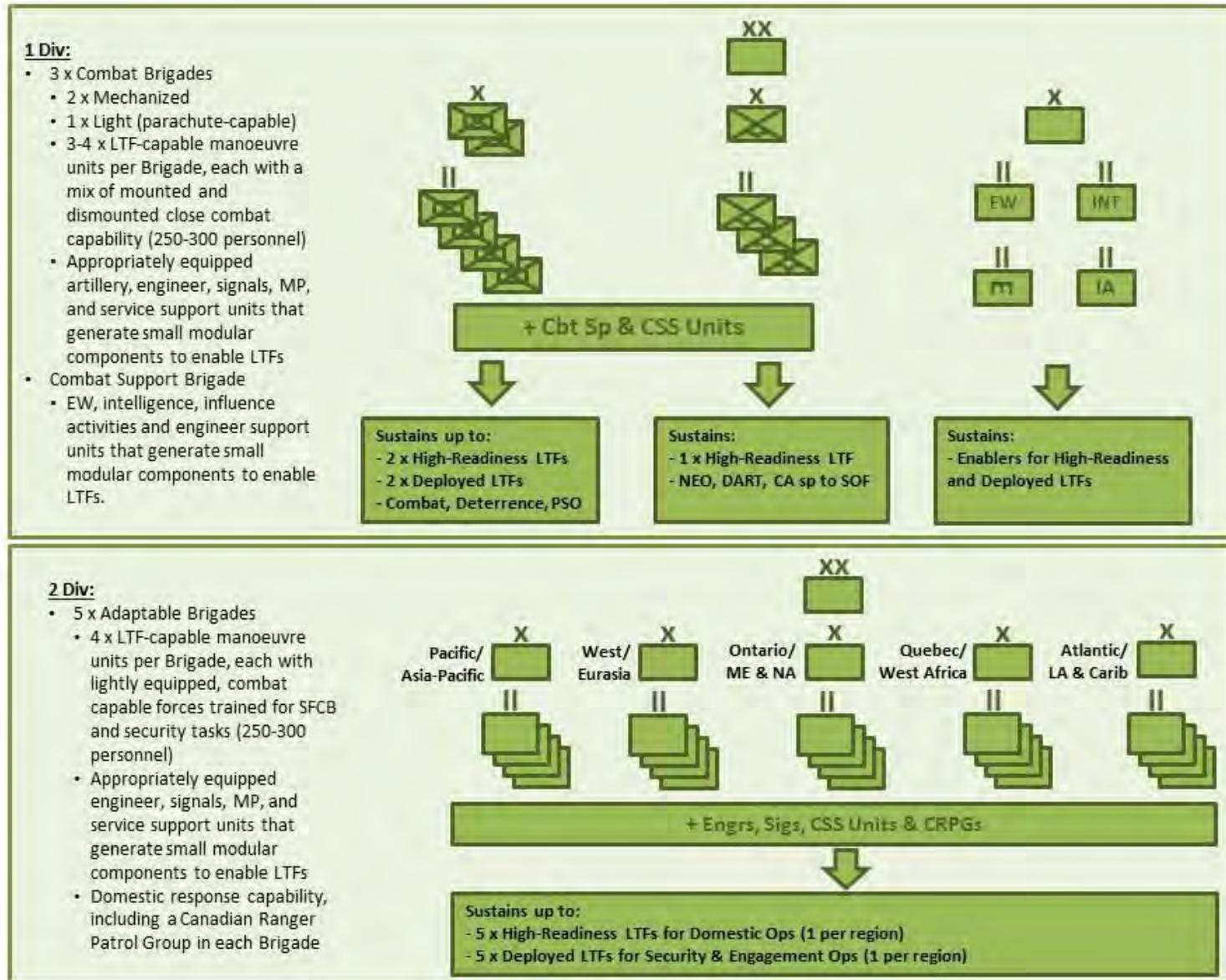
CONCLUSION

The CA's organizational design must adapt to meet the demands of the *SSE* defence policy and the contemporary operating environment, and to leverage available human capital. By increasing role specialization, optimizing force structure for the deployment of smaller, tactically self-sufficient units, and integrating full- and part-time soldiers below unit level, the CA can better align force generation activities with operational outputs. A modest degree of role-specialization would allow units and soldiers to narrow the scope of skills and qualifications they require to be effective on operations, reducing the time and resources required during force generation, albeit with some risk of losing the flexibility of the current multi-purpose approach. Optimizing the

⁷⁷Department of National Defence, *Strong, Secure, Engaged...*, 68.

CA to generate smaller integrated tactical groups would reduce organizational disruption by aligning its baseline structure with the scale of likely operational commitments. Changing the baseline structure would put at risk the CA's ability to generate larger tactical groups in the event of major conflict or other significant task, but it would enable the degree of role-specialization required in the context of small operational commitments. A greater number of small, role-specialized units would also require significant rebalancing of regular and reserve forces, but this challenge could be mitigated by adopting a full-time and part-time approach to employment.

Figure 1, below, illustrates a notional force model that incorporates the modifications described above into the CA's extant structure. This model does not account for a myriad of other force design considerations. It does not provide a detailed establishment against which its feasibility can be tested, for example, nor does it account for the complexities of altering the regimental system or disrupting the institutional links between reserve units and their communities. It must also be tested more rigorously to determine if it can sustain operational outputs or adapt to additional demands, in terms of the number of missions it can support or the size of the force required. Nevertheless, this model addresses important institutional and operational drivers for change. It represents a starting point for discussion about how to adapt the CA to become a more effective, efficient and relevant force in the future.



BIBLIOGRAPHY

- Auld, F.G. *RCD Force Generation Warning Order – Operation Unifier Roto 5*. Headquarters Royal Canadian Dragoons: file 3350-1 (J5), 20 October 2017.
- Australian Army. “Combat Brigades.” Last modified 15 June 2017. <https://www.army.gov.au/our-future/modernisation-projects/plan-beersheba/multi-role-combat-brigades>.
- Australian Government Department of Defence. “Global Operations.” Accessed 11 April 2018. <http://defence.gov.au/Operations>.
- Biddell, Stephen, Julia Macdonald, and Ryan Baker. “Small footprint, small payoff: The military effectiveness of security force assistance.” *Journal of Strategic Studies* 41, no. 1-2 (2018): 89-142.
- British Army. “Deployments – Baltics.” Accessed 11 April 2018. <https://www.army.mod.uk/deployments/baltics>.
- British Army. “Operations and Deployments.” Accessed 11 April 2018. <https://www.army.mod.uk/deployments>.
- Canada. Department of National Defence. B-GL-300-000/FP-001, *Land Operations*. Ottawa: DND Canada, 2008.
- Canada. Department of National Defence. *Canada First Defence Strategy*. Ottawa: DND Canada, 2008.
- Canada. Department of National Defence. *Canada’s International Policy Statement – A Role of Pride and Influence in the World: DEFENCE*. Ottawa: DND Canada, 2005.
- Canada. Department of National Defence. *Future Force: Concepts for Future Army Capabilities*. Ottawa: DND Canada, 2003.
- Canada. Department of National Defence. *Land Operations 2021 Adaptive Dispersed Operations: The Force Employment Concept for the Army of Tomorrow*. Ottawa: DND Canada, 2007.
- Canada. Department of National Defence. *Strong, Secure, Engaged: Canada’s Defence Policy*. Ottawa: DND Canada, 2017.
- Canada. Office of the Auditor General. *Report 5 – Canadian Army Reserve-National Defence*. Ottawa: OAG Canada, 2016.
- Canada. Senate. Standing Committee on National Security and Defence. *Emergency Preparedness in Canada, Volume 1*. Ottawa: Senate Canada, 2008.

- Canadian Army. "Bases and Units." Last modified 9 April 2018. <http://www.army-armee.forces.gc.ca/en/about-army/bases-units.page>.
- Canadian Army. "Canadian Army of Today." Last modified 19 April 2018. <http://www.army-armee.forces.gc.ca/en/about-army/organization.page>.
- Clancy, Tom and John Gresham. *Special Forces: A Guided Tour of U.S. Army Special Forces*. New York: Penguin, 2001.
- Collett, Sean. "Leadership Issues Facing Army Reserve Leaders in Total Force Transformation." Master's thesis, Royal Roads University, 2006.
- "Cove Webinar – UK Conceptual Force (Land) 2035 – Colonel James Cook." YouTube video, 25:46. Posted by "The Cove," 8 November 2017. <https://www.youtube.com/watch?v=yPui8zC1YU8>.
- Defence Committee. "Oral evidence: SDSR 2015 and the Army, HC 108." Accessed 11 April 2018. <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/defence-committee/sdsr-2015-and-the-army/oral/34418.html>
- Dillon, A.J. "Recalibrating the Canadian Army's Force Generation Model." Joint Command and Staff Programme Component Capabilities Service Paper, Canadian Forces College, 2018.
- Doran, Daniel A. "Reports of the Auditor General of Canada – Canadian Army Reserve: The Missing Link." *Canadian Military Journal* 17, no. 4 (Autumn 2017): 67-71.
- Due, Jonathan , Nathan Finney, and Joe Byerly. "Preparing Soldiers for Uncertainty." *Military Review* (January-February 2015): 26-30.
- Eldaoud, N. Presentation, Canadian Forces College, Toronto, ON, 30 November 2017.
- Graham, S. "Canadian Army Managed Readiness Plan." Informal lecture, Canadian Forces College, Toronto, ON, 11 December 2017, with permission.
- Granatstein, J.L. *Canada's Army: Waging War and Keeping the Peace*. Toronto: University of Toronto Press, 2002.
- Haug, Jan Erik. "The Operational Mentoring and Liaison Team Program as a Model for Assisting the Development of an Effective Afghan National Army." Master's thesis, United States Army Command and General Staff College, 2009.
- Heilman, C.A. *2 Service Battalion Exercise Stalwart Guardian 2016 Post-Exercise Report*. Headquarters 2 Service Battalion: file 3350-1 (SLOO), August 2016.