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EMPOWERING THE DIVISION IN THE CANADIAN ARMY: SCALING CONTRIBUTION FOR COMBINED JOINTNESS

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AIM

1. Today military operations, from a Canadian Armed Forces (CAF) perspective, are not only inherently joint but multi-domain. The concept of joint has evolved from meaning the operational integration of effects from more than one of the three traditional domains: air, land and sea to include the additional domains of: cyber, information and space.

> *Multi-domain operations as a concept proposes that the joint force can achieve competitive advantage over a near-peer adversary by presenting multiple complementary threats that each require a response, thereby exposing adversary vulnerabilities to other threats.*[1]

2. Canada's expeditionary mandate is one of contribution; which is to say the expeditionary operating environment for the CAF is coalition or combined. The challenges for the CAF to be joint gets further exacerbated in a combined context. Recent expeditionary missions have been largely non-combat operations and, as such, non-doctrinal multi-national (MN) communications solutions and sustainment arrangements have been leveraged. However, in an expeditionary, Anti-Access Aerial Denial (A2AD) war fighting scenario these temporary solutions would not be sufficient. Due to the joint nature of contribution warfare, interoperability is essential. Equipment, doctrine, sustainment, systems, culture and information are but a few hurdles to both joint and combined interoperability. The aim of this paper is to identify the essential elements for basic joint interoperability for both independent and combined operations and to discuss options that the Canadian Army (CA) can employ to achieve low cost, interim, joint interoperability for joint and combined force generation (FG) and force employment (FE).

INTRODUCTION

3. Joint capabilities within the CAF generally encounter two main frictions: firstly joint operations in the CAF are actually better characterized as air integrated with either sea or land forces. Via the 2nd Canadian Mechanized Brigade Group (CMBG), the CA has achieved excellent success through the development of joint air-land, air mobility, airborne planning tactics, techniques and procedures (TTP) and standard operating procedures (SOP) as well as establishing air movement and helicopter underslung operations (HUSO) skill sets at the unit and formation level. These are all ways that the CA has continued to develop and cultivate a strong level of interoperability, integration and familiarity with the Royal Canadian Air Force (RCAF). Through the use of the G3 Air/Aviation, tactical air coordination party (TACP) as well as joint terminal attack coordinator (JTAC), forward observing officer (FOO) and fast air controller (FAC)

[1] Congressional Research Service, *Defense Primer: Army Multi-Domain Operations (MDO)* (WASHINGTON: US Government, [2020]), 1.

qualified personnel tactical joint communications and coordination of effects down to the unit level are facilitated. Joint sustainment is more challenging at the formation level due to resourcing limitations and air frame specific commodities required to keep air and aviation units operational. The CA does not conduct collective training (CT) or engage in planning with the Royal Canadian Navy (RCN) for the purposes of developing a reliable mechanism for sea-land integration to the same level. In terms of joint capability within the CAF this is a clear omission. Amphibious operations and the integration with the RCN for the purposes of Joint Forcible Entry Operations (JFEO) is not a skillset that the CA currently has. Secondly, despite having a strong track record for participating in MN CT exercises with contributions ranging from platoon to battle group (BG), the CA lacks the requisite levels of interoperability, at the unit level and below, for both the tactical communications and sustainment necessary for combined combat operations.

4. This service paper will briefly discuss these key interoperability concerns, which I personally witnessed, during JRTC 20-03. It will reference the expanded domains and essential elements for joint and combined operations identified in the Pan-Domain Force Employment Concept (PFEC) and then examine the division as the appropriate level, within the CAF, to achieve maximum joint integration within a domestic, expeditionary and combined context for both FG and FE purposes. Finally it will make some recommendations to enable an interim, low cost, comprehensive, joint capability in line with the PFEC directed next steps.

DISCUSSION

5. In 2019 the CA tasked 2 CMBG with sending a combined arms battalion group to participate in the United States Army Alaska (USARAK), 25 Airborne Brigade Combat Team (BCT) serial at JRTC. This Canadian combined arms battalion selected, was the 3rd Battalion of The Royal Canadian Regiment (3 RCR).[2] 3 RCR was approved for participation in all key training milestones identified in the USARAK road to war.[3] The scenario for this serial was a BCT within a division context airborne JFEO to seize key lines of communication and establish a bridgehead for a subsequent ground and air invasion and massing of combat power. Once achieved, the BCT would expand lodgement and re-stabilize the area of operations. This was a complex multi-domain, combat operation that included MN contributions from both Canada and Japan and incorporated special operations forces, air, aviation, as well as the full compliment of army combined arms elements. This unfolded over a period of six weeks and included the synchronization of, division led, staging and rear area operations from an intermediate staging base (ISB) more than 100 km from the notional theatre of operations. As well as complex division coordinated deep fires and suppression of enemy air defence (SEAD). The BCT conducted coalition airborne JFEO which included a sub-unit of Canadian

[2] C. Bowes, *3 RCR Post Exercise Report – Joint Readiness Training Centre (JRTC), Rotation 20-03 (Pe*tawawa, Canada: Department of National Defence, [2020]).1,2

[3] B. Irvine, "3 RCR's Experience at JRTC 20-03 – Interoperability Lessons Identified" N/A, Petawawa, Canada, 2020).4

paratroopers and an RCAF CC130J aircraft. The serial culminated with a battalion live fire exercise.[4]

6. This experience highlighted a number of key lessons for Canadian combined arms and joint integration in a coalition context. The normal frictions arising from slight variances in kit, equipment and capabilities were identified early and largely temporary, tactical solutions were achieved. Many of these issues were a by-product of the CAF pace of modernization for wheeled platforms, re-invigoration of light force capabilities including mortars, pioneers and anti-armour as well as some frictions resulting from an aging and largely incompatible static line round parachute canopy. All of these things were identified by 3 RCR with the knowledge that, with time, these capabilities would evolve in accordance with current CA policy and eventually achieve better levels of interoperability.[5] The areas that fell desperately short of coalition interoperability standards were: sustainment and communications. The US Army has adopted a system for military secure data and voice communications enabling real-time situational and positional awareness from unit to division. This system is called Command Post of the Future (CPOF).[6] Though extremely powerful it is currently a US only system meaning that there was no shared tactical communications system for the Canadian unit embedded in a US BCT. While on operations, coalition forces have shared systems such as Battlefield Information Collection and Exploitation System (BICES); these systems are not used below division as they are not suited to austere forward tactical use.[7] In addition to this the US Army is organized differently for sustainment. All tactical sustainment is centralized within a Brigade Service Battalion (BSB) that is directly enabled by a Combat Service Brigade (CSB). This construct is designed to provide for US class of supply but due to the forward positioning of Combat Service Support (CSS) Company within Canadian units, it is ill equipped to interface with the US sustainment organism.[8] Creating a deficiency for Canada only classes of supply such as parts, fuel and people. Temporary solutions for these two critical shortfalls were found and, though largely sub-optimal, through the use of liaison officers (LnO) sufficient structures were achieved. The issue is that for communications and sustainment, the lower you go in tactical formations, the more challenging it becomes. The mechanisms that are best suited to MN coordination and the achievement of optimized joint and combined operations exist at the brigade and perhaps more importantly the division levels within the Canadian military organisation. Thus, in the case of JRTC 20-03, it was Canada's scale of contribution that created the majority of the interoperability frictions.

7. The temporary solutions that were identified to enable the successful execution of the CT event would not have been suitable for sustained expeditionary combat operations. The key interfaces at the BCT and BSB were achieved with a small group of LnOs but they were under manned and resourced to achieve an integrated effect. From a

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[4] Bowes, *3 RCR Post Exercise Report – Joint Readiness Training Centre (JRTC), Rotation 20-03 1, 2.*
[5] Irvine, "3 RCR's Experience at JRTC 20-03 – Interoperability Lessons Identified " 6
[6] *Ibid.*
[7] Bowes, *3 RCR Post Exercise Report – Joint Readiness Training Centre (JRTC), Rotation 20-03, 1, 2.*
[8] *Ibid.*

planning and command, communication, computers and control (C4) perspective it was not the information that was classified but rather the system.[9] As such our LnOs were able to get paper and compact disk copies of orders and then physically deliver them to the Canadian unit headquarters (HQ). The same was replicated in terms of sustainment reports, returns and planning. However with a greater Canadian brigade staff presence combined with Canadian systems for secure data and voice, the integration would have been more complete and lasting.[10] Tactical joint effects were achieved through a United States Marine Corps Air Naval Gunfire Liaison Company (ANGLICO) team. This was extremely effective due to their ability to communicate both with the Canadian JTAC and FOO/FAC teams attached to the infantry companies as well as the coalition assets and approval authorities. While the Canadian aviation and fixed wing aircraft were declared assets to the division and the coordination of their 2nd and 3rd line requirements was more easily achieved, the CA unit had no mechanism to coordinate or secure key Canada only 2nd and 3rd line capabilities. This underscored the importance of the division for enabling true joint and combined interoperability and the requirement to ensure that for the purposes of both FG and FE Canadian contributions are scaled to ensure that specific sustainment and parallel C4 functions are accounted for.

8. On balance, both of these interoperability concerns get addressed through the Vice Chief of Defence's (VCDS) stated priorities of supply chain automation and an integrated combined/joint C4 ISR spine. Those capabilities are not likely to arrive within the immediate or near future. They are expensive, require coordination with pan-domain and coalition partners and must navigate the necessary bureaucracy of procurement. While the CA waits for that to happen it can not allow its ability for joint and combined integration to atrophy. The CA does have alternate structures and parallel capabilities that it can better integrate to achieve an interim effect.

9. Since 2014 the United States, United Kingdom, France, Germany and NATO have seen a renaissance of the army division.[11] Once thought to be an antiquated formation it was traded for multiple, dispersed combined arms brigades. Time and the collective military experience in both Iraq and Afghanistan have taught western militaries that this was a mistake.[12] A brigade HQ is able to coordinate air support and fires but, as a small organization, it is not organized to synchronize and coordinate the myriad of elements of contemporary pan-domain operations such as: information operations, host nation partner forces, MN forces, and political engagement. Nor is it capable of sustainment for a long campaign.[13] A brigade HQ is simply insufficiently staffed to provide these functions.[14] The PFEC identified expanded domains including information, cyber and space as well as the 14 elements including: integration of operational approach, conscious action, pan-domain integration, whole of government coordination,

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[9] *Bowes, 3 RCR Post Exercise Report – Joint Readiness Training Centre (JRTC), Rotation 20-03, 1, 2.*

[10] Irvine, "3 RCR's Experience at JRTC 20-03 – Interoperability Lessons Identified " 8

[11] Anthony King, *Command: The Twenty-First-Century General* (United Kingdom: Cambridge University Press, 2019).35

[12] *Ibid,* 29.

[13] *Ibid.*

[14] *Ibid,* 30.

collaboration with allies and partners, spatial coherence, temporal awareness, artificial intelligence, adapted intelligence, evolved planning and C2, modern and complete capability and multi-dimensional interoperability[15]. As a result the CA has learned that its coordination function extends beyond simply the combined arms but also to integrate them with air and navy power, helicopters, drones, information, cyber, space, electronic, psychological, civilian and political partners.[16] Due to this expansion of functions, the division emerges as the optimal tactical level where traditional combined arms action can be integrated with pan-domain effects.[17]

10. Countering this, the fact remains that, as currently organized and resourced the CA is ill-disposed to deploy divisions on prolonged expeditionary mandates. Additionally, CA divisions have separate expeditionary and domestic mandates with two separate chains of command and budgets. To mix or blur those functions would be complicated and subject to failure. However, the current structure could be better leveraged to re-design some of its financial architecture, support dependencies and command dynamics and grow the capability for tactical employment in a domestic and continental context. Then those skills could be leveraged for comprehensive and robust division and brigade level combined, expeditionary staff contributions.

11. CA employs a different approach for FG than the other domains. Clearly defined activities, authorities and priorities for when conducting FG verses FE. The line between FG and FE is marked by a declaration of readiness indicating that a formation is transitioning from one to the other. The changing nature of conflict, grey zone aggression and hybrid threats dictate that the CA, just like the other domains, should always be operational.[18] This means that the concurrency of FG with FE needs to be achieved like the RCAF and RCN. The continual prosecution of operations domestically while nesting FG for expeditionary operations within the domestic FE priorities. This will synchronize the CA planning and programing with the other domains and empower the divisions to coordinate with their pan-domain interlocutors.[19] This means that pan-domain interfaces need to be established at the division level ensuring a comprehensive cyber, information and space along with the current land, sea and air ones.[20] This will combine perfectly with the division's ability to merge regular and reserve force capabilities as well as communicate and cooperate with political and civilian strategic partners and other governmental departments at the provincial and municipal levels.

CONCLUSION

12. Current CAF contributions to MN CT and expeditionary operations are scaled to smaller, unit and below, formations. This scale of commitment, while easier from a

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[15] Canadian Armed Forces, *Pan-Domain Force Employment Concept Prevailing in an Uncertain World* (Ottawa, Ontario, Canada: Canadian Armed Forces, [2020]).4
[16] *Ibid*, 54.
[17] King, *Command: The Twenty-First-Century General*.54
[18] Canadian Armed Forces, *Pan-Domain Force Employment Concept Prevailing in an Uncertain World*. 28,29.
[19] *Ibid*, 25.
[20] *Ibid*.

resourcing and FG perspective, presents a couple of critical interoperability deficiencies. Specifically these deficiencies result from a lack of coalition trust for shared tactical communications systems for secure data and voice as well as significant organizational differences concerning sustainment. A re-scaling of contribution to replicate these functions at the brigade and division level and account for these current incompatibilities will be a key interim solution for quality joint and combined integration. A subtle reorganization of the CA division structure to account for the expanded domains and 14 elements identified in the PFEC and a more efficient blending of FG and FE for the expressed purpose of persistent pan-domain domestic and continental FE that incorporates FG for like outputs in an expeditionary role will ensure that joint operations are achievable by the CAF both independently and within a coalition context.

RECOMMENDATIONS

13. CA seek opportunities to learn from the RCAF and RCN to adopt an 18 month planning horizon, a culture of continuous operational employment and efficiencies for synchronizing domestic and continental FE to achieve expeditionary FG.

14. CA convene an operational planning group (OPG) for the purposes of determining what organizational changes would need to be made in order to ensure division level alignment with defined PFEC outcomes for joint and combined capabilities.

15. For the purposes of CAF contributions to MN CT and operations, better consideration for scale of participation is needed to ensure truly joint and combined interoperability is achieved.

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