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ENTRAINEMENT MANDATOIRE POUR LES ÉLÉMENTS DE SERVICE DE SUPPORT DE COMBAT AYANT LEUR PROTECTION ORGANIQUE

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JCSP 46
Service Paper

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PCEMI 46
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CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES

JCSP 46 – PCEMI 46
2019 – 2020

SERVICE PAPER - ÉTUDE MILITAIRE

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Word Count: 2,760

Nombre de mots : 2.760

CREDIBLE, INTEGRAL FORCE PROTECTION FOR TACTICAL COMBAT SERVICE SUPPORT UNITS

AIM

1. The absence of a credible, integral force protection capability for tactical Combat Service Support (CSS) units is a vulnerability that will be exploited to the detriment of future Canadian Armed Forces (CAF) operations so long as some kinetic threat characterizes the land aspect of these operations. The threat to tactical CSS units is compounded by the complexity, asymmetry and potency of the physical dimension of today's Security Environment (SE). The Canadian Army (CA) must commit to rapidly undertaking a capability gap analysis with the immediate goal of describing a set of operational and technical requirements for a credible, integral CSS force protection capability.

INTRODUCTION

2. The latest Canadian and allied thinking about the Future Security Environment (FSE) describes a landscape of fluidity and multi-dimensionality that is underpinned by long term, unrelenting shaping operations.[1] These exist within the sphere of emerging power competition and multi-polarization that is most influenced by the movements of Russia and China.[2] In the past five years, Russia annexed Crimea and invaded Ukraine,[3] North Korea conducted missile tests under the cover of Chinese dissuasion of Western intervention,[4] and armed protests burst out in Hong-Kong in response to China's subversion of the transition process.[5] The tactics and techniques used by the perpetrators of these events confirm that many of the proposed ideas on the FSE are observable today. Therefore, the FSE is in many ways today's SE. The natural deduction is that the timeline to close capability gaps is exceedingly short. In order for the CA to develop the flexibility and adaptability demanded by today's SE, it must act with urgency and resolve.

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[1] Department of National Defence, B-GL-700-000/JP-007, *Canada's Future Army Volume 1: Methodology, Perspectives and Approaches* (Kingston: DND Canada, 2015), 41 – 49; Ministry of Defence, *Strategic Trends Programme: Future Operating Environment 2035* (Shrivenham: MOD UK, 2015), 1 – 7, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/646821/20151203-FOE_35_final_v29_web.pdf; Department of Defence, *2016 Defence White Paper* (Canberra: Australian Government, 2016), 39 – 52, https://www.defence.gov.au/WhitePaper/Docs/2016-Defence-White-Paper.pdf.

[2] Department of National Defence, B-GL-700-000/JP-007, *Canada's Future Army Volume 1: Methodology, Perspectives and Approaches* (Kingston: DND Canada, 2015), 42; Department of Defence, *2016 Defence White Paper* (Canberra: Australian Government, 2016), 41 – 43, https://www.defence.gov.au/WhitePaper/Docs/2016-Defence-White-Paper.pdf.

[3] Organization for Security and Cooperation in Europe Permanent Council, *Decision no. 1117: Deployment of an OSCE Special Monitoring Mission to Ukraine*, no. 991, 21 March 2014, https://www.osce.org/pc/116747.

[4] Kelsey Davenport, "Kim Missile Tests Draw Muted U.S. Reaction," *Arms Control Association*, June 2019, https://www.armscontrol.org/act/2019-06/news/kim-missile-tests-draw-muted-us-reaction; Reuters, "North Korean Projectile Lands In Japan's Exclusive Economic Zone, Tokyo Says," *CNBC*, 1 October 2019, https://www.cnbc.com/2019/10/01/north-korea-launches-apparent-missile-japans-coast-guard-says.html.

[5] Tara John, "Why Hong Kong is Protesting: Their Five Demand Listed," CNN, 30 August 2019, https://www.cnn.com/2019/08/13/asia/hong-kong-airport-protest-explained-hnk-intl/index.html.

3. It is not surprising that many aspects of the Future Operating Environment (FOE) are also observable currently: the arming of non-state actors by Russia as a means of increasing the kinetic potency of separatist forces in the Donbas;[6] the use of anti-access techniques as technically and financially significant as the construction of the Kerch Strait bridge to monopolize the economic and operational sea routes to the Azov Sea (in addition to the more obvious connecting of Russia to Crimea);[7] and the requirement to conduct combat operations amongst and with indigenous populations, as in Afghanistan and Iraq, and as urbanization increases.[8] The initial broad discussions on Hybrid Warfare have led to an accrued understanding of the intersection of the defence and the security domains whereby the projection of force is only one, yet an essential, component of coordinated, Whole-of-Government responses.[9] Therefore, while the CAF develops its capabilities in cyber, space and big data analytics, it must also maintain and evolve its core competencies to be relevant in today's Operating Environment (OE).[10] Within this context, the conventional vulnerabilities to kinetic attack, the most acute of which is tactical CSS, remain very relevant to the CA's ability to succeed. Given Canada's commitments to Ukraine and Latvia, dissecting the physical dimension of Russian Hybrid Warfare is a relevant way to observe the nature of the kinetic threat.

DISCUSSION

4. The arming of non-state actors is an established Russian technique that dates at least as far back as its involvement in Africa in the 1970s.[11] This trend was perpetuated by its involvement in Moldova, Georgia and now in Ukraine.[12] Russia justifies the use of such techniques because it considers itself to be under constant attack by the West.[13] It interprets Western-imposed sanctions and NATO's so-called encroachment of buffer zones as akin to Hybrid Warfare.[14] Therefore, Russia's own use of unconventional techniques will likely not cease.

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[6] Patrick J. Savage, "The Conventionality of Russia's Unconventional Warfare," *Parameters – U.S. Army War College* 48, no. 2 (June 2018): 81 – 83, https://search.proquest.com/docview/2166016317?pq-origsite=summon.

[7] European Parliament Legislative Observatory, *Resolution on the Situation in the Sea of Azov*, 2018/2870 (RSP), 25 October 2018, https://oeil.secure.europarl.europa.eu/oeil/popups/summary.do?id=1559344&t=e&l=en.

[8] Ben Barry, *Harsh Lessons: Iraq, Afghanistan and the Changing Character of War* (London: Routledge, 2017), 143; Ministry of Defence, *Strategic Trends Programme: Future Operating Environment 2035* (Shrivenham: MOD UK, 2015), 2 – 3, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/646821/20151203-FOE_35_final_v29_web.pdf.

[9] John J. McCuen, "Hybrid Wars," *Military Review* 88, no. 2 (March/April 2008): 112, https://search.proquest.com/docview/2166016317?pq-origsite=summon.

[10] Department of National Defence, B-GL-700-000/JP-007, *Canada's Future Army Volume 1: Methodology, Perspectives and Approaches* (Kingston: DND Canada, 2015), 70.

[11] Patrick J. Savage, "The Conventionality of Russia's Unconventional Warfare," *Parameters – U.S. Army War College* 48, no. 2 (June 2018): 78 – 79, https://search.proquest.com/docview/2166016317?pq-origsite=summon.

[12] *Ibid*., 80.

[13] Soňa Rusnáková, "Russian New Art of Hybrid Warfare in Ukraine," *Slovak Journal of Political Sciences* 17, no. 3 (October 2017): 345, https://content.sciendo.com/configurable/contentpage/journals$002fsjps$002f17$002f3-4$002farticle-p343.xml.

[14] *Ibid*., 345.

5. In Ukraine, Russia has demonstrated that it is adept at leveraging organized criminals and non-state actors to project force indirectly and with great effect. It armed the pro-Russian biker gang, the Night Wolves, to conduct operations in Sevastopol in 2014.[15] Russia also supplied arms to separatists in Donetsk and Luhansk as reported by the Organization for Security and Cooperation in Europe's (OSCE) Special Monitoring Mission to Ukraine (SMMU). The list of weapon systems reported by the SMMU include: T-72 Main Battle Tanks; BMP Infantry Fighting Vehicles; 152 mm Self-propelled Howitzers; 122 mm Towed Howitzers; and Multiple Launch Rocket Systems (MLRS).[16] Russia also supplied Surface-to-Air Missiles to separatist forces in the battle for Donetsk airport.[17] Another publication reports the following numbers of categories of weapon systems provided by Russia to separatist forces in the Donbas by 2015: 450 tanks; 900 armoured vehicles; 370 pieces of conventional artillery; and 380 MLRS,[18] although by this time in the conflict it is unclear whether these systems were transferred entirely to separatists or operated by a combination of separatist forces and Russian professional soldiers. Either way, these reports confirm Russia's willingness to inject quantities of weapon systems into conflicts as a means of bolstering kinetic potency and lethality. None of the CSS equipment in the CA could hope to survive engagement by these types of weapon systems, and the increasing global demand for Russian-made arms almost guarantees that CA forces will face the kinetic threat posed by these systems.[19]

6. Another salient aspect of Russian methodology is exposed by the very inability to distinguish which weapon systems were operated by separatist forces versus professional Russian soldiers in the Donbas. Russia has established the practice of using Special Operations Forces (SOF) and professional regular forces to structure and reinforce insurgencies and non-state actors.[20] SOF were used to conduct early shaping operations such as seizing government buildings in Crimea as a precursor to the complete annexation of the peninsula.[21] The same *modus operandi* served in Donetsk and Luhansk. Later in 2014, when the success of the separatist forces in the Donbas seemed uncertain, professional Russian regular forces crossed the border via separatist-held regions to counter-attack the Ukrainian Army and volunteer

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[15] *Ibid*., 368.

[16] Organization for Security and Cooperation in Europe, *Status Reports of the Special Monitoring Mission to Ukraine*, May - August 2015, https://www.osce.org/special-monitoring-mission-to-ukraine/157261; Organization for Security and Cooperation in Europe, *Spot Report by the Special Monitoring Mission to Ukraine: Fighting Around Marinka*, 4 June 2015, https://www.osce.org/ukraine-smm/162116.

[17] Patrick J. Savage, "The Conventionality of Russia's Unconventional Warfare," *Parameters – U.S. Army War College* 48, no. 2 (June 2018): 82, https://search.proquest.com/docview/2166016317?pq-origsite=summon.

[18] Roger E. Kanet, *Routledge Handbook of Russian Security* (London: Routledge), 395, https://www.taylorfrancis.com/books/e/9781351181242.

[19] Department of National Defence, A-FD-005-001/AF-003, *The Future Security Environment 2013 – 2040* (Ottawa: DND Canada, 2014), 13.

[20] Patrick J. Savage, "The Conventionality of Russia's Unconventional Warfare," *Parameters – U.S. Army War College* 48, no. 2 (June 2018): 81 – 83, https://search.proquest.com/docview/2166016317?pq-origsite=summon.

[21] Soňa Rusnáková, "Russian New Art of Hybrid Warfare in Ukraine," *Slovak Journal of Political Sciences* 17, no. 3 (October 2017): 366, https://content.sciendo.com/configurable/contentpage/journals$002fsjps$002f17$002f3-4$002farticle-p343.xml.

battalions.[22] Russia's ability to project force directly into a conflict is dependent on its geographic proximity to the conflict area.[23] In this aspect, Ukraine is unique. It would be irresponsible to use the case of Ukraine definitively and in its entirety to generalize Russian Hybrid Warfare techniques.[24] However, history has demonstrated Russia's willingness and ability to use these techniques whereby the closer one operates to Russia, the more likely one is to face conventional kinetic threats, though they might be projected in unconventional ways.[25] Given Canada and its allies' involvement in regions proximate to Russia, CA tactical CSS units should be equipped today with force protection capabilities commensurate to the most relevant types of weapon systems reported by the SMMU. Although the CA will likely not be involved in combat operations directly against professional Russian forces,[26] the fluidity and multi-dimensionality of the SE could see Canadians conducting lower-spectrum operations in areas where Russian weapon systems are pervasive due to their geographic persistence once non-state actors are armed (as observed by the SMMU in the Donbas in 2019, five years following the initial arming of separatists).[27]

7. At first glance, the example of the Kerch Strait bridge might not seem directly relevant to success in the current OE. However, when considered from the lens of an emerging power's ability to shape the SE in a manner that limits operational-level options, the implications are clearer. The denial of access to Sea Ports of Disembarkation in partner nations is a significant operational constraint. The use of such anti-access techniques limits commanders to riskier option spaces such as forcing the land-based movement of equipment and supplies through more tenuous regions. This was the case for the movement of donated medical supplies to the Donbas, via local handlers, during Operation UNIFIER in 2018. Due to the permissive nature of the OE, the threats were theft, coercion and subversion of the strategic messaging.

8. It is a not a great leap to consider the potential impacts to an operation of a combination of anti-access techniques and arms persistence in a less permissive OE. Extended lines of communication through less permissive regions and urban areas redefined CSS operations in Afghanistan and Iraq. The threat of legacy Soviet weapons, such as mines converted to Improvised Explosive Devices and RPG anti-armour weapons, was pervasive. Coalition experiences clearly demonstrated the vulnerability of CSS convoys and the requirement for force

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[22] Patrick J. Savage, "The Conventionality of Russia's Unconventional Warfare," *Parameters – U.S. Army War College* 48, no. 2 (June 2018): 82 – 83, https://search.proquest.com/docview/2166016317?pq-origsite=summon.

[23] *Ibid*., 84.

[24] Soňa Rusnáková, "Russian New Art of Hybrid Warfare in Ukraine," *Slovak Journal of Political Sciences* 17, no. 3 (October 2017): 344, https://content.sciendo.com/configurable/contentpage/journals$002fsjps$002f17$002f3-4$002farticle-p343.xml.

[25] Patrick J. Savage, "The Conventionality of Russia's Unconventional Warfare," *Parameters – U.S. Army War College* 48, no. 2 (June 2018): 84 – 85, https://search.proquest.com/docview/2166016317?pq-origsite=summon.

[26] Department of National Defence, A-FD-005-001/AF-003, *The Future Security Environment 2013 – 2040* (Ottawa: DND Canada, 2014), 2, 3, 13.

[27] Organization for Security and Cooperation in Europe, *Status Reports of the Special Monitoring Mission to Ukraine*, September - October 2019, https://www.osce.org/special-monitoring-mission-to-ukraine/157261.

protection, leading to the established use of Combat Logistic Patrols (CLP).[28] However, force protection elements were tasked to CLPs from fighting echelons, reducing the depth of the manoeuvre plan. The unreliable availability of fighting echelon assets was also an issue that impacted confidence in coalition forces' ability to assure the sustainment of combat power.[29] Commanders often negotiate for support from partners to make up for gaps in capability, to increase the number of viable options or to gain efficiencies. However, reliable plans that are inherently flexible and adaptable can only be based on those resources under direct command and control. If those resources are inherently vulnerable, as are the CA's tactical CSS units, they further detract from flexibility and adaptability by forcing commanders to allocate fighting echelon assets to CSS force protection tasks. This reduces available combat power and erodes depth.

9. In order to evaluate the force protection capability gap for tactical CSS units, it is also relevant to consider how technological advances to weapon systems might influence the nature of the threat in the FOE. The common misconception is that Russian technology is outdated and certainly overmatched by US and allied technologies. This myth has been proven false by observations of Russian employment of electronic warfare, cyber-attack and Unmanned Aerial Vehicles (UAV) throughout the conflict with Ukraine.[30] Furthermore, Russia is known to be developing armed Unmanned Ground Vehicles (UGV), in the form of the Platforma-M. It is also pushing the boundaries of UGVs, having initiated the development of unmanned tanks.[31] Canada's allies recognize the implication of this departure from the perceived Russian bias for quantity over quality. The UK and Australia recognize that they will no longer continue to enjoy the competitive edge of advanced military technology when compared to nations that do not have to justify national budgets via democratic process.[32] Both the UK and the US have recognized that emerging powers will be better able to deploy a variety of effectively armed lower-tech, lower-cost systems and precisely employed high-tech, high-cost systems to great effect.[33] Both these categories will exploit unmanned platforms, whereas Western nations will be more reliant

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[28] Dean Clark, "Only the Strong Survive – CSS in the Disaggregated Battlespace," *Australian Army Journal* 9, no. 1 (Winter 2014): 22 – 24, https://www.army.gov.au/sites/g/files/net1846/f/aaj_2014_1.pdf.

[29] *Ibid*., 22 – 23.

[30] M. Kofman et al, Lessons from Russia's Operations in Crimea and Eastern Ukraine (Santa Monica: RAND Corporation, 2017): 50 – 51, https://www.rand.org/pubs/research_reports/RR1498.html; Joseph Hammond, "Ukraine Drones Show Sanctions Don't Clip Russia's Wings," The Defense Post, 4 October 2019, https://thedefensepost.com/2019/10/04/ukraine-russia-drones-sanctions/.

[31] John K. Foley, "Russia: A Casualty Adverse Army," *Fires* (September 2017): 5, https://sill-www.army.mil/firesbulletin/archives/2017/sep-oct/sep-oct.pdf.

[32] Ministry of Defence, *Strategic Trends Programme: Future Operating Environment 2035* (Shrivenham: MOD UK, 2015), 14, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/646821/20151203-FOE_35_final_v29_web.pdf; Department of Defence, *2016 Defence White Paper* (Canberra: Australian Government, 2016), 49, https://www.defence.gov.au/WhitePaper/Docs/2016-Defence-White-Paper.pdf.

[33] Ministry of Defence, *Strategic Trends Programme: Future Operating Environment 2035* (Shrivenham: MOD UK, 2015), 14 – 16, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/646821/20151203-FOE_35_final_v29_web.pdf; Ted W. Schroeder, "Future War with Russia: A Scenario to Consider," *Marine Corps Gazette* (February 2018): 42, https://search.proquest.com/docview/1992592445?pq-origsite=summon.

on equipping the soldier and keeping humans at the centre of the decision-making cycle.[34] The increasing, and eventually pervasive, use of UGVs by state and non-sate actors will change the nature of the kinetic dimension of the FOE. Technological redundancies will diminish the ability to suppress weapon systems, and significant reductions to injury and death rates will increase aggression and persistence.[35] Combat operations will be forced to transition in focus from suppression to destruction,[36] increasing the intensity and duration of the fight. Under these conditions, the requirement for integral force protection of CSS units that are able to fight in order to sustain will be all the more pressing.

10. In order to establish a credible, integral force protection capability for CSS units, the following considerations must also be addressed. These often form the basis for opposition to the idea: the procurement cost of a new capability; the in-service costs; training and skills maintenance; and required increases to establishments. The procurement costs of a new capability would likely be significant, and there is no such project planned within the CA's equipment program over the next 15 years.[37] Nevertheless, difficulty in securing additional funding does not diminish the requirement. However, reallocating some portion of an existing fleet might alleviate this issue. Doing so would also address the capability gap much more quickly than via a procurement. This latter solution would only make sense if the capability gap analysis supports the option. In-service costs would have to be programmed into the National Procurement funding envelope unless an existing fleet is reallocated, in which case in-service costs would likely remain relatively unchanged. Training and skills maintenance would have to be factored into the Operating Plans of CSS units. There is already an established precedence for the Armoured Vehicle Crew Commander course being required by Royal Canadian Electrical and Mechanical Engineer personnel to crew command certain Mobile Repair/Recovery Team vehicles. This could be expanded to CSS personnel assigned to force protection duties. The CSS Convoy Commander's Course is now managed by the Canadian Army Doctrine and Training Centre and delivered by Divisional Training Centres. It could be adapted with limited effort to incorporate a new force protection capability. Gunnery and tactics are training deficiencies for which a more substantial assessment is required. Lastly, increases to CSS establishments would likely not be required. The Service Battalions currently employ military personnel in institutional support roles such as base traffic and movements, bussing, national freight runs, base maintenance and the second line supply depots. Contracting these services out or transitioning them to the Public Service would increase the availability of military personnel to do military-

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[34] Ministry of Defence, *Strategic Trends Programme: Future Operating Environment 2035* (Shrivenham: MOD UK, 2015), 32, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/646821/20151203-FOE_35_final_v29_web.pdf; Department of National Defence, B-GL-700-000/JP-007, *Canada's Future Army Volume 1: Methodology, Perspectives and Approaches* (Kingston: DND Canada, 2015), 56.

[35] Ted W. Schroeder, "Future War with Russia: A Scenario to Consider," *Marine Corps Gazette* (February 2018): 41, https://search.proquest.com/docview/1992592445?pq-origsite=summon.

[36] John K. Foley, "Russia: A Casualty Adverse Army," *Fires* (September 2017): 5, https://sill-www.army.mil/firesbulletin/archives/2017/sep-oct/sep-oct.pdf.

[37] Department of National Defence, *Strong, Secure Engaged Initiatives Report (Capital Projects)*, 9 September 2019.

unique tasks. Also, an increased focus on recruiting and retention of CSS Non-Commissioned Member occupations would result in improved personnel availability without necessitating establishment increases. None of these considerations will be resolved effortlessly. However, the evidence that the current OE and the FOE demand integral CSS force protection cannot be ignored. These issues need to be tackled, and the first step is the conduct of a capability gap analysis.

CONCLUSION

11. Due to the dispersed, non-contiguous nature of the OE, tactical CSS units must be able to defend themselves against potent weapon systems and to fight to sustain combat power when required.

12. Without a credible, integral force protection capability tactical CSS units will continue to constrain commanders' option spaces and to erode flexibility and depth by forcing the allocation of fighting echelon forces to CSS force protection tasks.

13. Canadian and allied thinking on the FSE and the FOE proposes that the fluidity and multi-dimensionality of operations will continue to grow. The value of flexibility and adaptability will increase proportionately as decision cycles shorten.[38] Whether fighting echelons are used for combat operations or other tasks in support of a coordinated Whole-of-Government response, their potency and depth must be protected to allow commanders the greatest possible option spaces.

RECOMMENDATIONS

14. A capability gap analysis should be conducted to determine the operational and technical requirements of a credible, integral force protection capability for tactical CSS units.

15. Based on the outcome of this analysis, the options of procuring a new capability or permanently reallocating a portion of an existing fleet to CSS units should be considered.

16. The enabling considerations of costs, training, skills maintenance and personnel availability necessitate a more detailed assessment. However, the requirement is not diminished because of these factors.

[38] Department of National Defence, B-GL-700-000/JP-007, *Canada's Future Army Volume 1: Methodology, Perspectives and Approaches* (Kingston: DND Canada, 2015), 70.