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ENABLING CANADIAN ARMY DOCTRINE: CLOSING THE CAPABILITY GAP

Maj R.J. Corby

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CAPABILITY GAP**

Maj R.J. Corby

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ENABLING CANADIAN ARMY DOCTRINE: CLOSING THE CAPABILITY GAP

More than most professions the military is forced to depend on intelligent interpretation of the past for signposts charting the future. Devoid of opportunity, in peace, for self-instruction through actual practice in his profession, the soldier makes maximum use of historical record in assuring the readiness of himself and his command to function efficiently in emergency. The facts derived from historical analysis he applies to conditions of the present and the proximate future, thus developing a synthesis of appropriate method, organization, and doctrine.

- General Douglas MacArthur to US Secretary of War, 30 June 1935.

AIM

1. The aim of this paper is to advocate enabling the execution of Canadian Army (CA) doctrine. The focus of this paper will be the current lack of two weapon systems that prevent the CA from achieving its vision as laid out in *Waypoint 2018, The Canadian Army Advancing Toward Land Operations 2021* of providing a “scalable, task-tailored response, ready to address threat scenarios across the spectrum of conflict.”¹ Specifically, this paper will address the absence of Low Level Air Defence (LLAD) as well as Medium Range Anti-Armour Weapons (MRAAW) in the CA. While each of the two capabilities are a separate weapon system, the CA’s deficiency in the capabilities provided by these weapons are equally threatening to force protection and effectiveness of the CA in the field. The last effort of the CA to retain these capabilities was a joint/combined solution, ineffectual for both of their intended individual roles and ignored the very different nature of each capability.

INTRODUCTION

¹ Department of National Defence, B-GL-300-000/AG-003, *Waypoint 2018, The Canadian Army Advancing Toward Land Operation 2021* (Kingston, Canadian Army Land Warfare Centre, 2015), 10.

2. By the early 2000s the CA had divested numerous capabilities from various arms. Force and position reduction within Regular Force infantry battalions included the removal of mortars, anti-armour, and pioneer platoons from their orders of battle. A common argument has been that the loss of these capabilities within infantry battalions was mitigated by the tactical grouping of arms within deployable Battle Groups (BG) built around infantry battalions. Thus it can be argued that the lack of integral mortars can be overcome by the attachment of an artillery battery to the BG or similarly the attachment of a combat engineer squadron to the BG could mitigate the lack of integral pioneers. The removal of anti-armour platoons from infantry battalions as well as the cancellation of the Multi-Mission Effects Vehicle (MMEV) in 2006 which was to provide both a MRAAW and LLAD capability signaled an end to the ability of the CA to engage armoured or reinforced enemy targets. A large gap was left between the Short Range Anti Armour Weapon-Heavy (88mm Carl Gustave recoilless rifle) and Canada's Main Battle Tank (MBT) the Leopard 2.² Likewise, the cancellation of the MMEV coincided with the divestment of CA's Javalin's stock and the cancellation in all but name of the advanced lightweight anti-armor weapon system in 2006.³

3. This paper will first examine the stated role of the CA by examining current strategy statements as well as doctrinal publications in order to best understand the CA's requirement for the above capabilities. The two capabilities will be discussed separately, their absence measured against doctrine and Government defence related statements. This will highlight the impact that their dropping as capabilities have had on achieving the

² The Ottawa Citizen, "Army backtracks on plan to ditch armoured tanks," last accessed 03 February 2016, <http://www.canada.com/ottawacitizen/news/story.html?id=f103c834-10c6-4e79-971b-1e6ab894ef34>.

³ CANWEST News Service, "Canadian Missile Buy on Hold," last accessed 03 February 2016, http://www.canada.com/story_print.html?id=fce6a269-c25a-4d0e-9569-e90ff542fbfd&sponsor=.

force model desired in both doctrine and policy statements. Finally, in order to highlight the operational requirement for these capabilities, two conflicts will be used to illustrate the practical application of these capabilities in war: the Falklands War and the Russo-Ukrainian War in the Donbas. The Falklands War has been chosen to demonstrate the light and medium weight conventional infantry centric nature between two near-peer forces; conditions and characteristics that figure prominently in *Waypoint 2018*.⁴ The War in Donbas will be utilized due to its illustration of emerging threats as well as its full-spectrum of operations, a spectrum of threat environments that the CA is expected to be able to fight in as laid out in CA strategy.⁵

DOCTRINE AND STATEMENTS

4. The new Federal Government has signaled that one of its leading priorities is to “renew Canada’s commitment to United Nations peace operations.”⁶ If an era of renewed participation in peace support operations is in fact going to dawn for the CA, it will be necessary to ensure that missions which are seen as potentially less kinetic in nature are not seen as justification for not continuing to address capability gaps. CA doctrine states that “during a peace support campaign, land forces may conduct offensive combat operations to create the conditions for lasting peace.”⁷ The ability to effectively keep and monitor peace will often depend on the capabilities of our force in place.

⁴ *Waypoint 2018*...7

⁵ Department of National Defence, B-GL-005-000/AC-001, *Advancing with Purpose: The Army Strategy 3rd Edition*, (Ottawa, Director Army Staff, 2014). 4.

⁶ Office of the Prime Minister of Canada. Minister of National Defence Mandate Letter. Last accessed 07 February 2016. <http://pm.gc.ca/eng/minister-national-defence-mandate-letter>

⁷ Department of National Defence, B-GL-300-001/FP-001, *Land Operations*, (Kingston, Chief of Land Staff, 2008). 3-11.

5. The CA's own vision echoes the existing defence policy statement, The Canada First Defence Strategy of being "prepared to get the right people, with the right skills and the *right equipment* into the *right place at the right time*..."⁸ This suggests a high degree of mobility and flexibility in the ability to deploy forces. Further, the CA must be able to deploy "*adaptive and agile*" forces against a "*near-peer or conventional threat*."⁹ Waypoint 2018 additionally states that the CA will "*influence adversaries beyond the range of their weapons* with lethal and non-lethal capabilities."¹⁰ This vision statement by the CA is not ignorant to the fact that there are some capability gaps but states that the CA has "acknowledged (these) as acceptable risks".¹¹

6. CA strategy directs the creation of a "professional, *medium-weight force*..."¹² and to provide "deployed personnel with the right mix of *equipment to conduct*, on their *own or with allies, full spectrum operations*..."¹³ CA strategy states that CA's core competency is the "ability to engage and win in close combat across the *full spectrum of operations*, possessing *adaptive and agile, medium weight force*..."¹⁴ Finally, the CA's capstone doctrinal publication, *Land Operations* defines "medium (weight) forces" as being "strategically and operationally more deployable than heavy forces and may be among the first elements to deploy into a theatre of operations," and must have integral

⁸ Waypoint 2018 (emphasis added)...2

⁹ Waypoint 2018 (emphasis added)...7

¹⁰ Ibid, (emphasis added)...12

¹¹ Ibid, 62.

¹² Advancing with Purpose (emphasis added)...iii

¹³ Ibid, (emphasis added)...4

¹⁴ Ibid, (emphasis added)...10

firepower.¹⁵ *Land Operations* states also that the CA should reflect “modularity and scalability.”¹⁶

7. Government statements of defence policy, CA strategy and doctrine all reflect the same expectation of CA characteristics: an agile, adaptable, scalable, medium weight force rapidly capable of undertaking missions across the full spectrum of operations. What follows below is an outline of where CA capabilities do not meet this expectation and what the impact could be on CA operations.

THE ANTI-ARMOUR CAPABILITY GAP

8. Mentioned above was the proposition that an increase in operations which lean more towards the peace support end of the spectrum rather than conventional war should not be accompanied by a delay in investing in an anti-armour capability. It may be argued that the capability required to destroy a main battle tank on the battlefield would be inappropriate in the context of a peace support operation. The desire to have the presence of a professional military force on a peace support operation is not only a reflection of the requirement for survivability while reporting and observing, but also a function of deterrence. Best illustrated by one of Canada’s most famous commanders of a peacekeeping mission, Major General (Ret’d) Lewis Mackenzie’s recollections from his days opening the Sarajevo Airport during the early days of UN operations in the Former Yugoslavia:

I also knew that we would be in no position to intimidate any potential opponent... it would be helpful, however to be able to hold off the tanks... so I asked Canada... to send us our TOW anti-tank missile system...it could take out any tank in Sarajevo and would provide a good boost for

¹⁵Land Operations...1-5

¹⁶ Ibid., 1-8

our soldiers' morale as they watched Bosnian Serb tanks from a distance. The missiles would be able to engage the tanks long before the tanks fired on us. I hoped the missile system wouldn't be necessary, but there was no sense taking chances.¹⁷

9. CA strategy calls for a “direct fires weapon suite that must provide for a layered, scalable, flexible (multi-purpose) and complimentary breadth of systems necessary to support all levels from the individual soldier to the formation.”¹⁸ In order to place CA strategy into the context of medium to light forces fighting in a near-peer environment, the Falklands War in 1982 provides an excellent case study. Mostly absent of belligerent armoured forces, British Forces were significantly enabled by the employment of their longer range anti-armour weapons. When a small, attacking light infantry British Force engaged an Argentinian dug-in position with Milan missile systems, the larger Argentinian Force immediately surrendered their position at Darwin, thinking that they were under attack by a much larger enemy force.¹⁹ Similarly, 2nd Battalion, Parachute Regiment's use of Milan in conjunction with medium machine guns to suppress from 1500 metres Argentinian Strong Points during the Battle of Goose Green provoked a surrender from the Argentinian Forces who were out-ranged.²⁰ Further, in their seizing of Mount Longdon later on in the Campaign, 3rd Battalion, the Parachute Regiment utilized man-packed Milan systems to dislodge the Argentinian defenders.²¹

10. The Donbas conflict in Eastern Ukraine has provided an important case study that demonstrates conflict across the full spectrum. Both sides have used ageing self-propelled Howitzers to great effect against their adversaries. Counter battery fire has been difficult

¹⁷ Mackenzie, Lewis. *Peacekeeper, The Road to Sarajevo*, (Toronto, Douglas and McIntyre, 1993) 205.

¹⁸ *Advancing with Purpose*...16

¹⁹ Hastings, Max and Simon Jenkins. *The Battle for the Falklands*, (London, Michael-Joseph, 1983) 195.

²⁰ *Ibid.*, 246.

²¹ *Ibid.*, 298.

to employ due to the mobility of the platform. Anti Armour weapons have been utilized to counter this threat from long distances providing standoff for the infantry forces.²² Further, the prevalence of explosive reactive armour has negated the effectiveness of single warhead anti-tank weapons.²³ Following the implementation of the Minsk II ceasefire agreement which mandated the withdrawal of heavy artillery weapons, the Ukrainian Army found that its lack of MRAAWs made their hard fought for defensive lines un-supportable.²⁴

11. Canada's reliance on the 84mm Carl Gustav recoilless rifle with a maximum effective range of 300m against a moving target, lacks the capability to enable CA operations based on the scenarios outlined above.

THE AIR DEFENCE CAPABILITY GAP

12. Most worrisome about the CA's current Air Defence (AD) outlook is that there appears to be no consideration for an AD weapon to be procured. The CA's current vision for defence from air delivered munitions is an effort "to identify and seek approval for an integrated, networked and capable system that will enable the positive control of joint localities of airspace."²⁵ This seemingly un-armed vision conflicts with the CA's earlier attempt to identify future threats in the airspace: "reduced likelihood of encountering hostile fast air in the future operating environment, however, helicopters, converted civilian airplanes...can be expected."²⁶ Under the Shield Function in *Land*

²² Karber, Phillip A. *Lessons learned from the Russo-Ukrainian War, Personal Observations*, Draft, The Potomac Foundation, Last accessed 07 February 2016. <http://www.thepotomacfoundation.org/category/work/>

²³ Ibid.,

²⁴ Ibid.,

²⁵ Waypoint 2018...47

²⁶ Department of National Defence. *Designing Canada's Army of Tomorrow, A Land Operations 2021 Publication*. B-GL-300-000/AG-001 (Ottawa, Director of Land Concepts Designs, 2011) 19.

Operations, AD is the primary consideration at the tactical level²⁷ The notion that Canada will be able to rely on our coalition allies for AD is unrealistic, our own doctrine acknowledges that there is “unlikely to be sufficient AD resources available to provide adequate cover throughout the AO (Area of Operation).”²⁸ Doctrine states that AD weapons must be able to “keep up with the advance”, and thus the CA’s AD defence must be as mobile as the remainder of the force. Without an AD capability, Canada becomes either a burden to its coalition partners or is tasked with less prominent roles, rear of the battlespace.

13. Using the Falklands War as an illustration of the important role that is played by AD in near-peer, conventional operations, it is possible to see, more clearly, the role of AD in both the Shield Function as well as in shaping the enemy on the battlefield. The Falklands theatre was saturated with AD weapons due to the prevalence of air and sea power in this joint operating environment, an environment in which CAF strategic statements have envisioned the CAF excelling. There is an emphasis here on efforts to “strengthen key joint and enabling capabilities.”²⁹ The UK Task Force was very much influenced by the Argentinian Roland AD system concentrated in and around Stanley which had a very significant impact in shaping the UK’s tactics to retake the islands.³⁰ Once the UK forces landed at San Carlo in East Falkland, the first priority of the landing force was to establish their Rapier AD missile systems to not only protect the landing force but more importantly the naval task force’s ships in the littorals of the landing

²⁷ Land Operations...4-20

²⁸ Ibid., 7-79.

²⁹ Department of National Defence. Canada First Defence Strategy. Last accessed 05 February 2016. <http://www.forces.gc.ca/en/about/canada-first-defence-strategy.page>

³⁰ Van der Bigl, Nick. *Nine Battles to Stanley*. (South Yorkshire, Leo Cooper, 1999). 57.

site.³¹ Force protection for ships disembarking infantry and conducting resupply missions was in part achieved through the use of very mobile handheld Very Short Range Aid Defence Weapons (VSHORAD). These weapons, held by marine and infantry personnel, fired from on shore and on ship, contributing to a layered AD of the all friendly forces.³² Once disembarked, the infantry forces utilized a layered SHORAD and VSHORAD defence to protect rear support areas, assembly areas as well as other vulnerable points³³ This is a capability that the CA lacks and one that will severely limit the missions in which Canada could be asked to participate.

14. Despite the emphasis in defence statements, the CA's vision of and doctrine on the ability to operate across the full spectrum of operations including the conventional battlespace, the air threat is often dismissed as unlikely. A new revolution in air operations is the emerging threat constituted by Unmanned Aerial Vehicles (UAVs). This revolution in the use of UAVs is playing out in the Donbas Region where Russian backed rebels have used UAVs to achieve devastating effects on Ukrainian Army personnel. Utilizing a wide range of UAV platforms of different size, altitude and range capabilities, the opposition forces are conducting live feed targeting on Ukrainian units, both along the frontline and in the rear echelon. By emphasizing "tactical/operational ranges, they are able to identify and target complex, multiple sensor inputs, and produce a mass strike with high lethality area fires."³⁴ The massing of fires with Urgan and Smerch Multiple Launch Rocket Systems (MLRS) has replaced the traditional gun-fired artillery by the Russians. Whereas during the Cold War, Soviet Forces had a ratio of Artillery tubes to

³¹Smith, Gordon. *Battles of the Falklands War*. (London, Ian Allan LTD, 1989) 74.

³² The Battle for the Falklands...204.

³³ Ibid., 248.

³⁴Karber, Lessons Learned.

MLRS of 4:1, in Donbas, the ration has become 4:3. This suggests an evolving doctrine which, with little doubt, will include the continued use of drones for targeting and conducting Battle Damage Assessments.³⁵ Individual Ukrainian Army units have reportedly fielded their own drones, manufactured with off-the-shelf parts, for a cost of ten thousand dollars and a range of twenty kilometres.³⁶ This achievement only reinforces that surveillance platforms such as these will proliferate in number and in use, and will continue to be available to all but the least advanced belligerent groups. Therefore the CAF should fully expect to encounter similar platforms and have the means to counter the threat.

CONCLUSION

15. This paper has sought to highlight how two of the current capability gaps of the CA have meant that the CA has been unable to fully meet the intent of defence statements and the vision that the CA leadership has for its ability to fight. CA doctrine reflects an enabled CA, however, doctrinal and actual capabilities stand in contrast of each other. The vision that the CA has set for a mobile and flexible medium-weight force capable of operating across the full spectrum of operations, including in conventional war, is achievable if these two capability gaps are addressed. Both capability gaps were discussed together as past efforts to address them have focused on a joint solution. This paper has demonstrated how the role of each capability differs. Their place on the battlefield is not compatible with the idea of the capabilities sharing the same platform. The two minor case studies were utilized to demonstrate the requirement for these capabilities in a conventional near-peer conflict between light to medium forces as well

³⁵ Ibid.

³⁶ Ibid.

as emerging technology and tactics occurring today that will almost certainly be present on the CA's future battlefields.

RECOMMENDATION

16. The CA should reinvest in both a MRAAW and SHORAD, VSHORAD capability. The weapons systems themselves should reflect the nature of the CA's vision for itself. They should be: mobile; scalable; medium weight and range platforms that can defeat the threats on today's battlefield and the battlefields of tomorrow. A new anti-armour capability must have the ability to expand the strike range of rapidly deployable light infantry forces or be able to keep pace with the advance of a medium weight unit. A new AD capability will have to be two systems. One must be able to: provide forward forces with a rapidly deployable weapon; capable of being used by individual soldiers; and another system with an expanded range mounted on a suitable mobile platform. Annex A provides the recommended capability and structure of the force. Due to the differing nature of the two capabilities, a solution similar to the abandoned multi-mission effects vehicle should not be considered.

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Annex A: Enabling
Canadian Army
Doctrine.

Canadian Army: Reinvestment in Anti-Armour and Air Defence Capabilities.

Canadian Mechanized
Brigade Groups

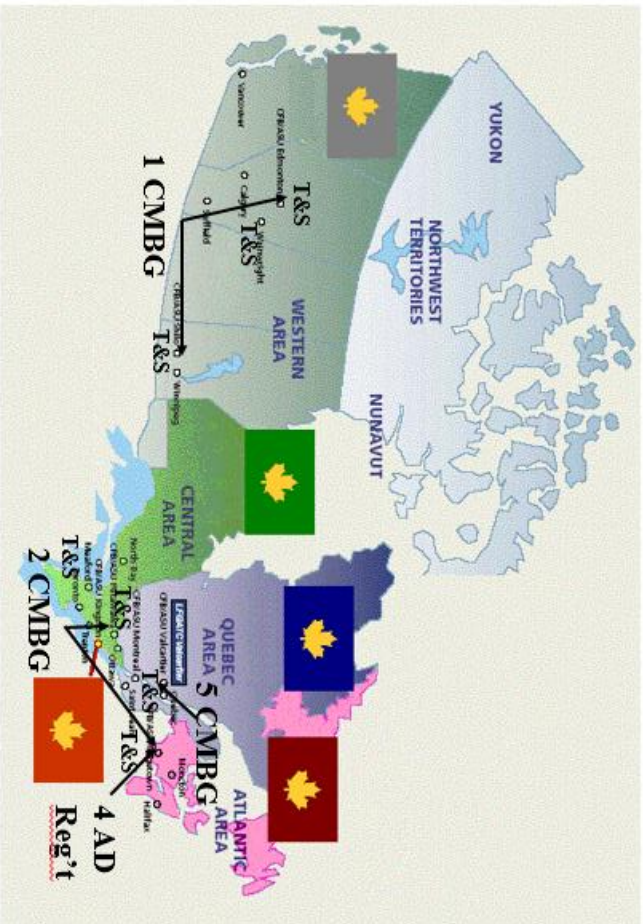
Mech Bns: Equipped with PI of LAV based anti-armour weapon. Each Rifle Coy equipped with 4 x dismounted anti-armour systems.

Light Inf Bn: Direct fire Platoon established and equipped with 4 x anti-armour systems. Each Rifle Coy equipped with 4 dismounted anti-armour systems.

Cmbt Engr Reg't: 7 dismounted anti-armour systems for light sqns. 3 mounted systems for the mech sqn.

Armoured Regt:
24 mounted systems for Recce Sqn.

Artillery Regt: 6 dismounted systems for gun-line security.



Canadian Mechanized Brigade Groups:
Air Defence: MANPAD (VSHORAD) weapons distributed to both manoeuvre elements and rear echelon units including Service Bns.

Baseline Training and Centres of Excellence:
Air Defence: Artillery School, Combat Training Centre; Anti-Armour, Joint Cell, Infantry and Armour Schools
Combat Training Centre, Gagetown.

Training and Simulation
(T&S):

Simulators for Anti-Armour and AD Weapons in order to find economies in training, integrated in existing Small Arms Trainer systems in the following Garrisons and training centres:

Edmonton, Wainwright, Shilo, Meaford, Petawawa, Valcartier, and Gagetown.

4th Air Defence Regiment: Remains under command of 1st Cdn Div HQ.
Reconstituted to provide a medium weight, light armoured vehicle mounted with a SHORAD system as well MANPADs ready to deploy in support of any CA Task Force as required.