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**THE IDEAL FIRE POSITION :  
THE FORCE LAYDOWN OF THE LEOPARD 2 IN THE CANADIAN ARMY**

**MAJOR A.C. DWYER**

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**Major A.C. Dwyer**

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# **THE IDEAL FIRE POSITION : THE FORCE LAYDOWN OF THE LEOPARD 2 IN THE CANADIAN ARMY**

## **AIM**

The aim of this service paper is to address the question of where the Leopard 2 Fleet should be stationed within Canada. Specifically, it weighs options of where tanks should be allocated based upon utility to the Corps and the Army. It will provide options that prioritize enabling this capability while ensuring it is well stewarded. The discussed options will then be assessed under the criteria of re-establishing Corps identity, providing the Canadian Armed Forces (CAF) with the best force package possible, while accounting for the limited availability of the resource itself.

## **INTRODUCTION**

1. The Royal Canadian Armoured Corps (RCAC) has been suffering a crisis of identity since 2003 (which corresponds with General Hillier's decision to decommission the tank fleet and the Corps' subsequent move away from the Leopard as its primary platform). Since that point, conflicting visions and lines of effort have emerged, resulting in three distinct regimental constructs. Inevitably, this leads to questions surrounding what an armoured regiment and squadron (sqn) consists of across the CAF. This has had a number of effects, but at the most basic level, it left the RCAC without a united identity and a fractured model of tank employment and training.

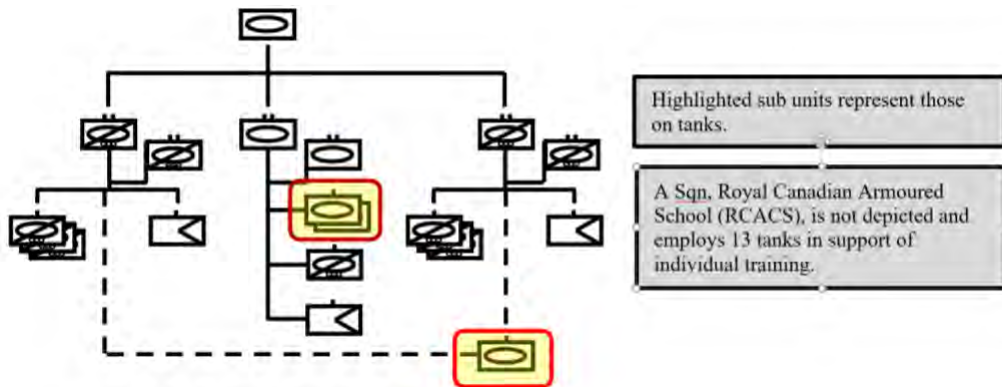
2. To properly address this issue, the conversation will be framed in three sequential parts: First, the current RCAC orbat will be addressed to understand some of the current issues; secondly, the discussion will address the current Defence Policy, Strong Secured

Engaged (SSE); lastly, the discussion will identify option space and assess it in order to reach a recommendation.

## DISCUSSION - ORBAT

As stated above, the RCAC is disjointed, with little observed progress towards alignment. The three regular force regiments have developed according to their own vision and are somewhat distinct in capability and capacity. This is illustrated in the figure below, which has been used since 2015 in correspondence from the Corps on behalf of the Deputy Director.<sup>1</sup>

Table 1. Royal Canadian Armoured Corps order of battle (ORBAT)



Source: Table provided by The Corps Major of the Royal Canadian Armoured Corps School (RCACS), which was presented to the Corps leadership on 23 October 2019. See footnote for further clarification.

3. Aside from having one regiment with two tank sqns and the other two sharing one tank sqn there are cascading differences in troop (tp) and sqn composition for sub-units

<sup>1</sup> This ORBAT was used in preparation of documents as Operations Officer of the RCACS in a Corps capacity for the Deputy Director as far back as 2015. It was validated through the Corps Major in October 2019. For the purpose of this paper, the tank sqns have been highlighted and comments have been inserted by the author to account for the RCACS.

that will be assigned similar or identical roles. As presented in a 23 October 2019 Corps brief to the Corps leadership by the Corps Major (Major Pascal Croteau) some non tank sqns boast tps of eight fighting vehicles while others are configured at five or four. Some sqns are focusing on a variation of US Cavalry doctrine while others maintain the traditional stream of Canadian Mounted Recce.<sup>2</sup> This does not focus on the tank community specifically, but it sheds light on the divergent paths of its stewards and is indicative of the overall state of the Corps.

4. Doctrinal tank sqns consist of 19 tanks and their fighting echelon is broken down into four troops of four tanks, with a sqn headquarters of three tanks. The CAF currently has 82 tanks divided into the following locations: A and B Sqn with Lord Strathcona’s Horse (Royal Canadians) (LdSH(RC)) in Edmonton; C Sqn, Royal Canadian Dragoons (RCD) in Gagetown; 13 with A Sqn, RCACS in Gagetown that serve as an individual training fleet; two in Montreal for project reference; and three in Borden to train maintainers.<sup>3</sup>

Table 2. Current tank locations within Canada

Location	Unit	Leopard 2 Variants			Total
		2A4	2A4M	2A6M	
Edmonton	LdSH(RC)	20	11	11	42
Gagetown	C Sqn (RCD)	11	5	6	22
	RCACS	9	2	2	13
Borden	CFSEME	1	1	1	3
Montreal	Reference	1	1	0	2
<b>TOTALS</b>		<b>41</b>	<b>20</b>	<b>21</b>	<b>82</b>

Source: Data provided by the Technical Adjutant of the Royal Canadian Armoured Corps, accessed 22 October, 2019.

<sup>2</sup> Major Pascal Croteau, “RCAC Restructure Brief to Corps Leadership,” (Corps Conference Presentation, Gagetown, 2019), 5.

<sup>3</sup> This information and table 2 were validated through the Royal Canadian Armour Corps Technical Adjutant, accessed 22 October 2019. Subsequent modified tables (3 and 4) use this as a basis.

Although C Sqn (RCD) is manned by both the 12e Régiment blindé du Canada (12e) and RCD, they report to 2 Canadian Mechanized Brigade Group (CMBG) in Petawawa and are tasked to support 5 CMBG in Valcartier. This is complicated by the fact that this sub-unit is separated geographically from both Units, Brigades and Divisions it reports to. While dislocated, it also fights Corps level issues, such as the mileage restrictions that were imposed upon the Leopard fleet by the Canadian Army (CA) and Canadian Army Doctrine and Training Centre (CADTC).<sup>4</sup> The result demonstrated during 2018's Exercise COMMON GROUND II, was a diminished tank sqn, running with three tanks per tp, fighting a complicated staff rearguard action that proposed the reduction of tactical movement (jockeying to and from positions and use of dead ground and effective consolidation into a ring of steel) and threatening the institutionalization of bad habits that would cost lives if employed in combat.<sup>5</sup>

5. Although C Sqn (RCD) was ultimately successful in that fight, language and expectations (as planning factors) create fundamental problems when the RCAC integrates with other elements. Effect based planning and invested leadership mitigates these issues, but needless logistical uncertainty and friction is added at the operational and tactical levels based upon this ambiguity. C Sqn (RCD) is a tribute to the Corps in its ability to serve two formations while working closely with the RCACS (due to

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<sup>4</sup> Canadian Army, *Canadian Army Tasking Order, Leopard 2 Fleet of Vehicles 2018* (18 May 2018), Annex A; *Canadian Army Doctrine and Training Centre, Canadian Army Doctrine and Training Centre (CADTC) Task Order, Leopard 2 Fleet of Vehicle (FoV) 2018* (30 June 2018), 4.

<sup>5</sup> Although the author was part of the Exercise and bore witness to the events as described, approval has been attained by OC C Sqn (RCD) to relate this event.

geography) but has it been set up for success? This remains a point of contention for a Corps that is only three (regular force) regiments strong.

## **DISCUSSION – DEFENCE POLICY**

6. To understand if this tank disparity (between CMBGs) is a strength that factors into Canada's size or an Achilles heel, the Corps (in its current construct) will be briefly compared against the current defence policy, Strong Secure Engaged (SSE). SSE has numerous tasks and lines of operations identified (specifically on page 81) that could be actioned at the behest of the government. It also delineates to Canada's leaders what the CAF can bring to a problem. According to SSE, "the Canadian Army is agile, scalable and responsive, providing the Government with a range of military capabilities on land."<sup>6</sup> The policy focuses on the CMBG as the organization that will enable that flexible task force, mentioning Armour as a key enabler with an emphasis on manoeuvre and firepower (two of the three tenants of Armour).<sup>7</sup> To re-enforce, the CA has stated in its 2016 Evaluation of Land Readiness that, "Level 5 is the CA's regular force level of foundation training. During HR training, it will include live fire training. It is at this level that the synchronization of arms and services becomes critical."<sup>8</sup> As level 5 is the combat team, which requires tanks as part of its construction<sup>9</sup>, it is clear that the tank remains in the CA's collective future. As the only realistic direct fire CA enabler able to destroy

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<sup>6</sup> Department of National Defence, *Strong Secure Engaged, Canada's Defence Policy* (Ottawa, 2017), 36

<sup>7</sup> Armour is defined by "Firepower, Mobility and Protection." It is the trinity from which all tanks are designed.

<sup>8</sup> Assistant Deputy Minister (Review Services), Evaluation of Land Readiness (Ottawa: DND Canada, 2016), 4.

<sup>9</sup> Department of National Defence, B-GL-321-006/FP-001, *Combat Team in Operations* (Ottawa: DND Canada, 2017), 1-2.



bodies of enemy armoured fighting vehicles and enable the infantry, it entrenches tanks in the CA. The expectation in policy (and doctrine!) is that each CMBG should be able to provide that scalable option and currently only two of our three CMBGs can accomplish this internally. The last relies on a standing command relationship.

## **DISCUSSION – IDENTIFYING AND EVALUATING OPTION SPACE**

7. Why would it be any better if each CMBG had its own tank sqn geographically located with them? If geographically co-located, the sqn would be able to draw on the support of the Regiment. The Regiment would be able to cross train soldiers without posting them. It would enable learning and ensure armoured soldiers and officers were at (the very least) exposed to what tank maintenance, preparation, tactics and logistical planning resembled. The Corps holistic understanding of one of its primary mandates and baseline culture would improve, facilitating CA planning, Corps messaging and regimental symmetry.

8. Having a fleet of 82 tanks spread across four locations presents another set of problems that must be addressed. In the current structure, the operational fleet is in two locations: Gagetown; and Edmonton. If the fleet is further split, factors such as (but not limited to) the following must be considered:

- a. availability of maintenance staff and postings;
- b. additional tooling demands;
- c. infrastructure reassessments (for parts, maintenance and the sqn);
- d. parts scaling by region and establishing additional logistical lines of communication;

- e. training area suitability; and
- f. annual costs and time required to move the tanks to the training areas required by high readiness training events.

Although all of these issues are substantive, the availability of infrastructure (in Petawawa), the suitability of training areas (in both Valcartier and Petawawa) and further splitting of distressed maintenance assets would prove especially problematic.

9. The next option is centralization. Like allies have done this with success, most notably the Australian Defence Force (1<sup>st</sup> Armoured Regiment)<sup>10</sup> and the Danish Army (Jydske Dragonregiment).<sup>11</sup> As the best manoeuvre training areas in Canada reside in the West (Wainwright and Suffield) the entire tank fleet could be moved to one of those locations. A, B and C Sqn would be relocated there in addition to the RCACS (complete). This would give each regiment its own displaced sqn that could be administered and championed by the Cmdt of the RCACS. Corps individual training would be completed in a training area more suited to manoeuvre and tank movement costs for collective training would be minimized (as most collective training occurs out West). Maintenance assets would be centralized and infrastructure plans could focus on one area, vice competing across divisions and regions. Tank allocation in this model has some flexibility to deal with minor repairs and still field a doctrinal sqn. Since the sqns are co-located, efficiencies could be found to support each others tasks if required (and proper

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<sup>10</sup> Australian Army, "Army order of battle," last accessed 25 October, 2019, <https://www.army.gov.au/our-people/army-order-of-battle>

<sup>11</sup> Danish Army, "Jutland Dragoon Regiment – Denmark," last accessed 21 October, 2019, <http://forsvaret.dk/JDR/Om%20Jydske%20Dragonregiment/Chef/Chef%20english/Pages/default.aspx>

authorization granted). Although other command relationships could be explored for such a concentration, those discussions fall outside the scope of this paper.

Table 3. Centralization of the tanks fleet.

Location	Unit	Leopard 2 Variants			Total
		2A4	2A4M	2A6M	
Wainwright (or Suffield)	LdSH(RC)	10	6	6	22
	RCD	10	6	6	22
	12e	10	6	6	22
	RCACS	9	0	1	10
Borden	CFSEME	1	1	1	3
Montreal	Reference	1	1	1	3
<b>TOTALS</b>		<b>41</b>	<b>20</b>	<b>21</b>	<b>82</b>

10. Centralization of the tank fleet in Canada is not the same as our allies by simple nature of geographic size. This would have sqns responding to their COs while dealing with a two-hour time zone difference. Another source of friction would be that the Cndt of the RCACS (who is also the Deputy Director of the Corps) would be a steward for the RCD's, 12e and LdSH(RC)'s tank sqns... while focusing on achieving his two other mandates. If the command of that grouping is decided to do anything but empower the regiments (as suggested) it would surely compound the Corps problems of identity vice remedy it. Separating tank sqns from the rest of their regiments also fuels concerns about further specializing the Corps as well as exasperating identified issues within the NCM progression path. It is also worth noting that supporting the RCACS and collective training considerations would not go away in this model, they would be more discrete but possibly more prevalent. These issues all pale however, when considering the immense infrastructure requirements to house the sqns and the RCACS in their new location.

11. Functionally rebalancing the tank fleet to empower the CMBGs, while enabling the collective and individual training through command arrangements (ordered through the CA) is the next option. This would retain A and B Sqn LdSH(RC) in Edmonton with a task to support collective training events in Wainwright. It would also maintain C Sqn (RCD) in Gagetown. The change would arise from the grouping of four tanks from the LdSH(RC) and four from C Sqn (RCD) to the RCACS tanks and assigning that sqn sized element to the 12e. The infrastructure for two sqns largely exists in Gagetown and the off-cycle CMBG (between 2 and 4) would be tasked to support individual training and the RCACS National Calendar for the year. An additional tank would be assigned directly to the RCACS (for a total of two – as the RCACS would retain one from their old fleet) to complete driver training in support of the Corps National Calendar requirements.

Table 4. Empowering the CMBGs.

Location	Unit	Leopard 2 Variants			Total
		2A4	2A4M	2A6M	
Edmonton	A Sqn LdSH(RC)	0	19	0	19
	B Sqn LdSH(RC)	0	0	19	19
Gagetown	C Sqn (RCD)	19	0	0	19
	D Sqn (12e)	19	0	0	19
	RCACS	0	1	1	2
Borden	CFSEME	1	0	1	2
Montreal	Reference	2	0	0	2
<b>TOTALS</b>		41	20	21	82

12. This type of allocation is fair and mindful of Canada’s geographic reality. It is however hard to utilize a fleet of 82 tanks in this manner and expect to deploy a 19 tank sqn. Even with motivated preventative crew maintenance, skilled maintenance staff and ample parts, two or three tanks could require repair at any given time... and that is not

taking into account inspection schedules. This solves a number of issues, but opens up discussions about what soldiers should expect to see in the field. Will it be three troops of four tanks plus the OC and Battle Captain (as was deployed in 2006 to Afghanistan),<sup>12</sup> or will it be four troops of three tanks with the same headquarters as suggested by the 2018 Leopard FoV mileage orders?<sup>13</sup> Like the Australians did in 2007, if adopting this model it would be in the Corps best interest to request that our fleet be brought up to 90<sup>14</sup>, giving each line sqn 21 tanks, and some small flexibility.

## CONCLUSION

13. The options presented abdicate change, movement of people, reallocation of vehicles and the transition (or creation) of infrastructure. Of the three, two present wholesale shifts (providing a local tank sqn to each CMBG or outright centralization) and one attempts to rebalance the fleet, but with additional tasks to support individual training (as the RCACS fleet was reallocated) but all address the central issue of identity faced by the Corps. As this unity of thought and identity is key to continued Corps health, this must remain a priority.

14. The weaknesses exposed in both the centralization and the provision of a local tank sqn to each CMBG are evident. The distorted command and control, specialization, segregation by qualification and start-up cost (and time) required to enable centralization make it an aspirational model that requires planning and perhaps evolutionary thought.

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<sup>12</sup> Which was the author's first Operational tour as a tank troop leader under (then) Major Trevor Cadieu, OC B Sqn, LdSH(RC).

<sup>13</sup> Canadian Army, *Canadian Army Tasking Order, Leopard 2 Fleet of Vehicles 2018* (18 May 2018), 14; *Canadian Army Doctrine and Training Centre, Canadian Army Doctrine and Training Centre (CADTC) Task Order, Leopard 2 Fleet of Vehicle (FoV) 2018* (30 June 2018), 4.

<sup>14</sup> Financial Review, "Army's Plans for More and Better Tanks," last modified 7 March 2017, <https://www.afr.com/policy/foreign-affairs/armys-plans-for-more-and-better-tanks-20170303-guqamb>

The provision of a local tank sqn provides great comradery for the regiment, but is ridiculously cost ineffective and would stretch the Corps and specifically its enablers to the point of breaking. It is also worth revisiting the fact that Petawawa and Valcartier's training areas are not suited to tank manoeuvre in comparison to Gagetown, Wainwright and Suffield.

## **RECCOMENDATION**

15. The best option is to allocate the 12e a sqn in Gagetown by relieving the RCACS of integral tank resources. In this model all regiments have a direct report from their tank sqn and the first step towards a larger symmetry is taken. It concurrently slaves two of the four sqns to the support of training on an annual basis (individual training out East and collective training out West), but does so while providing options about movement of assets and force composition to the CA. It does eliminate A Sqn RCACS, but the fact that there are two tank sqns in Gagetown that could rotate in support of National Calendar training alleviates that concern from the Corps level. It avails of resources readily available without the immediate need for new infrastructure and it benefits from support trades already largely in place. The problem of Corps doctrine and numbers will remain relevant in this model and although it is preferred to acquire an additional eight tanks, tank allocations are not likely to change in the near future. It may not be the perfect option, but it addresses the fundamental problem of Corps identity and best positions the RCAC to remain relevant in the eyes of doctrine, policy and the CA.

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