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General Specialists: The Future of Royal Canadian Artillery Junior Officer Training

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JCSP 48

Service Paper

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PCEMI 48

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CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES

JCSP 48 – PCEMI 48

2021 – 2022

Service Paper – Étude militaire

General Specialists: The Future of Royal Canadian Artillery Junior Officer Training

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GENERAL SPECIALISTS: THE FUTURE OF ROYAL CANADIAN ARTILLERY JUNIOR OFFICER TRAINING

AIM

1. The introduction of new capabilities such as the Medium Range Radar (MRR), Blackjack Small Unmanned Aerial System (SUAS), and the upcoming purchase of Ground-Based Air Defence System (GBAD) require technically skilled junior officers. However, artillery officers are expected to speak to all streams within the trade when in a headquarters or on a Canadian Army course. An outside observer could question whether a junior officer needs in-depth technical skills. Could valuable training time be invested in emotional intelligence, leadership skills, and generic decision-making techniques? This service paper will tackle this tension and examine if Royal Canadian Artillery (RCA) Officers should be trained as specialists within a stream or generalists.

INTRODUCTION

2. While there is only one Military Occupation Structural Identification Code (MOSID) for artillery officers, three specialised streams exist within the trade. These streams focus on providing different combat support functions to the Canadian Army and are; Field Artillery, which provide the fire support to brigades, Surveillance and Target Acquisition (STA), responsible for helping to create and execute Intelligence Surveillance Target Acquisition and Reconnaissance (ISTAR) plans with internal assets as well as coordinating the counter-mortar operations at the brigade level, and Air Defence who will plan and command GBAD systems as well as executing airspace coordination functions. Each stream requires unique qualifications to train a junior officer to Developmental Point 2.

3. These specializations require different training paths to achieve Developmental Period (2).¹ It is necessary to understand the Qualification Standard (QS) for each stream to understand the nuances of whether the RCA Corps can afford to train their junior officers as generalists during DP 1 and 2. This service paper will examine each DP 1 and 2 Training Plan to extract relevant QSs for each stream. This information will inform a discussion of why all artillery officers must achieve field QS before being eligible to train in the STA or AD streams. The logic for this choice will then be assessed against incoming technologies such GBAD, recruiting shortages, and the ongoing Military Employment Structure (MES) analysis. The paper will then conclude the discussion by examining how it may be possible to train artillery officers in their streams as early as 1.2 and what adjustments would be required to OFP expectations.

¹Department of National Defence, “DAOD 5031-8, Canadian Forces Professional Development,” Last accessed 19 January 2022, <https://www.canada.ca/en/department-national-defence/corporate/policies-standards/defence-administrative-orders-directives/5000-series/5031/5031-8-canadian-forces-professional-development.html>

DISCUSSION

4. Before examining the artillery officer occupational structure, it is essential to clarify the difference between generalist and specialist training and how this drives training to be technical or tactical. For the purposes of this paper, generalist training refers to training that is either applicable across all specializations, such as generic orders formats or leadership training and theory. Think of generalist training as preparing an officer to understand the employment of AD, STA, and Field artillery systems. Specialist training is inherently focused on the details of each stream. Training of this nature focuses on practicing the skills necessary to deploy and fight a specific system in an operational environment. Practical skills, such as supervising fire planning, integrating the air defended area of a brigade into higher AD plans, and integrating STA assets into the ISTAR plan, are key to specialist training.

5. The decision to train officers in either a generalist or specialist fashion influences the training balance between technical, tactical, and theoretical skills. Because generalist training aims to produce artillery officers that understand the theory of employing all three streams, the training will intrinsically skew towards a focus on theoretical and tactical considerations. Generalist training is intellectual and would also benefit from including lessons on developing cognitive abilities and new leadership concepts like those taught on JCSP. Creating specialists means concentrating on technical skills. Focusing on creating technically capable officers does not mean that tactical or theoretical skills are not trained. They are just less prominent in the training plan and will focus on the specifics of the officer's chosen stream. Armed with an understanding of the differences between generalist and specialist training, this paper will now examine the current artillery DP 1 and 2 training courses through the lens of the ongoing occupational review.²

6. The current Artillery Occupational Specification is over 20 years old and is undergoing re-examination by Director Personnel Generation Requirements (DPGR). The feasibility report recognized that investment in new technologies and the expansion of capabilities in the STA and AD stream required a focus on those streams and concentrated on two courses of action (COA); Single Occupation with Specialization Single Occupation with Sub-Occupation.³ While there are training design implications for each COA, the fact that each COA concentrated on supporting specialization streams highlights the importance of training AD and STA skills. The Director of Artillery selected the Single Occupation with Specialization COA for development. This selection led the MES review team to develop 25 individual jobs (e.g., Field TC, AD TC, etc.) at the DP 1-2 level with 6 AD, 10 STA, 6 Field, and the amount being STA and AD focused.⁴ But does the RCA's training system align with the requirements of these identified AD and STA jobs at the DP 1-2 level?

³ Department of National Defence, *Occupational Analysis Feasibility Report – Artillery Officer Occupational Analysis*, 07 July 2021.

⁴ Department of National Defence, *Annex A, Appendix 2, to Occupational Analysis Feasibility Report – Artillery Officer Occupational Analysis*, 07 July 2021.

7. The current DP 1.1 and DP 1.2 courses need an extensive re-design. The current DP 1.1 Qualification Standard (QS) and Training Plan (TP) underwent its last major writing board revision in 2008.⁵ The document reflects a time when the RCA was heavily engaged in providing support fire in Afghanistan with some supplemental STA and Airspace contributions. The TP aims to “produce an officer capable of performing the duties of a Troop Commander in a Gun Area” and does this by emphasizing technical skills with tactical application coming on the DP 1.2 course.⁶ The DP 1.1 TP contains nine Performance Objectives that candidates must pass to get the course qualification. Of these nine POs, only two, Supervision Gunline Operations and Implement the Force Protection Plan, possess material that could be considered useful to STA and AD officers.⁷ The rest of the POs are purely technical field gunnery tasks. In total, the current DP 1.1 course spends a staggering 50 out of 54 training days teaching technical skills that an AD or STA officer will most likely never use in their career!⁸ Can the RCA afford to invest 50 days of training and the associated resources, including instructors, into something that a portion of candidates will never need for baseline employment?

8. The DP 1.2 TP is more relevant to AD and STA than the DP 1.1. Part of this can be attributed to the course focus of “a heavy emphasis on employing skills in a fully tactical environment.”⁹ With tactical environments comes the opportunity for candidates to practice leadership and orders production. Of the seven POs in the TP, 3 (Apply advanced force protection measures, Conduct Gun Troop Administration, and Conduct a field firing exercise.) have skills relevant to all artillery specializations. This time equivalates to 14 of 55 training days germane to baseline employment across all regiments.¹⁰ While there exists a large utility gap in the 1.2 TP, there are POs that should be trained for all junior artillery officers if they are not already covered in the AD and STA TPs.

9. The current AD Officer TP, created in 2015 and last modified in September 2021, focuses exclusively on Air Defence considerations. While this is not surprising, many POs are required for an AD O to be employable as an AD Troop Commander. POs 001, 003, and 004 teach officers how to recce and employ an AD Troop.¹¹ None of these POs

⁵ Department of National Defence, A-P1-002-A10/PH-B0, *Training Plan – DP 1 Artillery Troop Commander Mod*, (Kingston: CADTC, 2010).

⁶ Department of National Defence, *Training Plan – DP 1 Artillery Troop Commander Mod 1*, pg 1-1/7.

⁷ Department of National Defence, *Training Plan – DP 1 Artillery Troop Commander Mod 1*. These two POs contain generic leadership tasks related to supervising routine operations in the field as well as good discussion of force protection estimates of a position. While force protection considerations will vary for STA and AD positions (ie radiation) some of the material in the DP 1.1 PO is valuable to all artillery officers.

⁸ The rationale for these numbers is to subtract the training days of the POs identified in footnote 6 from the total training days. Officers posted to 4 Regt GS will never use these skills and officers posted to the STA Btys in an RCHA regiment are extremely unlikely to use them, although they do provide redundancy for manning safety.

⁹ Department of National Defence, A-P1-002-A10/PH-B01, *Training Plan – DP 1 Artillery Troop Commander Mod 2*, (Kingston: CADTC, May 2009), pg 1-1/6.

¹⁰ Same methodology as footnote 7

¹¹ Department of National Defence, A-P8-002-ADC/PG-B01, *Training Plan – Air Defence Officer*, (Kingston:CADTC, 27 April 2015), pgs i-ii.

draw on previous skills taught in the current DP 1.1 and 1.2 courses. Yet, the DP 1.2 course is a pre-requisite for attendance on AD O.¹² Complicating matters is the fact that officers rarely receive AD O before their initial posting to 4 Regt (GS). This places subalterns in a position where they arrive at the regiment without the qualification and skills to be employable as a Troop Commander and often leave within a few months to attend the AD O course. It is a disjointed process that needs to be fixed.

10. Some aspects of the AD O TP would be beneficial for all artillery officers to receive in their training. PO 001, Plan the Air Defence Battle, includes sections that teach Radar, Electronic Warfare, and Guided Weapons theory.¹³ These topics are all pertinent to understanding the nature of contemporary and future warfare. Learning them would also enable junior officers to understand how their specialization fits into a pan-artillery contribution to land operations. As they are theory lectures, they could easily be included in any DP 1 Artillery officer course, specialized or generic.

11. An analysis of the STA O TP reveals a similar pattern as the AD O TP. DP 1.2 and the associated field artillery skills are pre-requisite for attendance.¹⁴ These field skills are useful background information for PO 003, Supervise Engagement of STA Targets, but do not relate to the other POs in the TP. Out of eight allocated POs, two are useful information for all artillery officers.¹⁵ The aforementioned “Supervise Engagement of STA Targets” involves officers verifying targets detected by STA assets against an Effects Guidance Matrix and then issuing a call for fire. Calls for fire are an excellent baseline knowledge that all officers should possess regardless of their stream. PO 004, Conduct Crater Analysis, is also relevant for all officers to possess and should not be confined to the STA stream.¹⁶ The rest of the STA TP POs involve either operating an STA command post or deploying specific capabilities in an operational environment. These are technical skills that should be practiced repeatedly before an officer takes command of an STA troop. However, like the AD stream, STA officers arrive at a regiment without these vital skills. Any re-design of RCA DP 1 officer training needs to produce knowledgeable AD and STA officers that are qualified for immediate employment as a troop commander upon their first posting to a regiment.

12. But how does the RCA balance the requirement to produce employable officers in all three streams while ensuring that officers can advise or respond to questions relating to all three streams? The DP 1 training programme requires some amount of generalisation. Junior officers should understand the tactical theory behind each stream and be allowed to participate in a field deployment for each. This approach enables the candidates to understand some of the nuances of each stream and will assist them in

¹² Department of National Defence, *Training Plan – Air Defence Officer*, 1-2/5.

¹³ Department of National Defence, *Training Plan – Air Defence Officer*, ii.

¹⁴ Department of National Defence, A-P1-002-STA/PG-B01, *Training Plan – Surveillance and Target Acquisition Officer*, (Kingston:CADTC, 21 September 2015), pg 1-2/5.

¹⁵ Department of National Defence, *Training Plan – Surveillance and Target Acquisition Officer*. The TP has nine POs but 002 is not allocated.

¹⁶ The Camp Commander tasked the author to conduct crater analysis on a rocket attack while he was deployed to Kabul, Afghanistan. The tasking came because I was an artillery officer, even though I was primarily field trained. All artillery officers should be prepared to conduct this basic task.

making an informed preference for a stream in later training. Taking a generalist approach early in the training process also allows for more capacity to include leadership development in the course training plan.

13. Technical training is still a necessity for artillery officers. Doubly so now that the MES review acknowledges that each specialization consists of specific jobs that require detailed technical understanding to execute. The corps needs to invest time into training junior officers to understand the nuances associated with deploying their capabilities. Training officers in field artillery before STA or AD increases course sizes, the pressure on the training institution and results in less practical experience for field officers before their first posting to a regiment. The current recruiting pressures due to COVID produce a situation that favours focusing on specialized technical training in one stream. With a reduced intake of officer candidates, the RCA cannot afford to expend frivolous training days on field artillery training that may never be used. The longer a candidate is in the training system, the more the units and institutions in the CAF will bear the burden.¹⁷ Mitigating this encumbrance by aligning RCA training to create generalists via initial exposure to all three foci culminating with an intense focus on the technical skills of a particular stream before posting to a field regiment aligns with CDS direction in the CAF Reconstitution Directive.¹⁸

CONCLUSION

14. The RCA must re-align its DP 1 officer training. Future training programmes must be streamlined enough to address recruiting pressures from COVID and align with the CAF reconstitution directive. However, aligning the training system will require choosing how much to focus on generalist training and how much time is allocated to learning the technical requirements of a chosen specialism. It is unacceptable to train the extreme of either choice. Artillery officers need a general understanding of all three streams to advise or “represent the cap badge” within a CA or allied headquarters. The RCA also owes it to the soldiers of the corps to produce officers that have a detailed tactical and technical understanding of their chosen stream. Added into the problem set is a requirement to improve leadership training and increase the retention of junior officers by ensuring they are placed into a stream that interests them and suits their respective strengths. This paper offers a solution to this wicked problem.

RECOMMENDATION

15. This paper recommends that the RCA re-align its training system into an hourglass method (Annex A). DP 1 RCA officer candidates would undergo a DP 1.1 course that exposes them to all three streams' theory and field exposure. Training

¹⁷ Department of National Defence, *Strategic Intake Plan Numbers – FY 19/20. Scorecard* and Department of National Defence, *CDS Planning Directive for Canadian Armed Forces Reconstitution*, (National Defence: Ottawa, 9 July 2021). The author does not have access to the latest Strategic Intake Plan numbers but there was a delta halfway through fiscal year 19/20. According to the CAF Reconstitution Plan recruiting during 2020 and 2021 was at 1/3 of its normal capacity.

¹⁸ Department of National Defence, *CDS Planning Directive for Canadian Armed Forces Reconstitution*, 16/38. The CDS accepts risk to higher level collective training to focus on entry-level training.

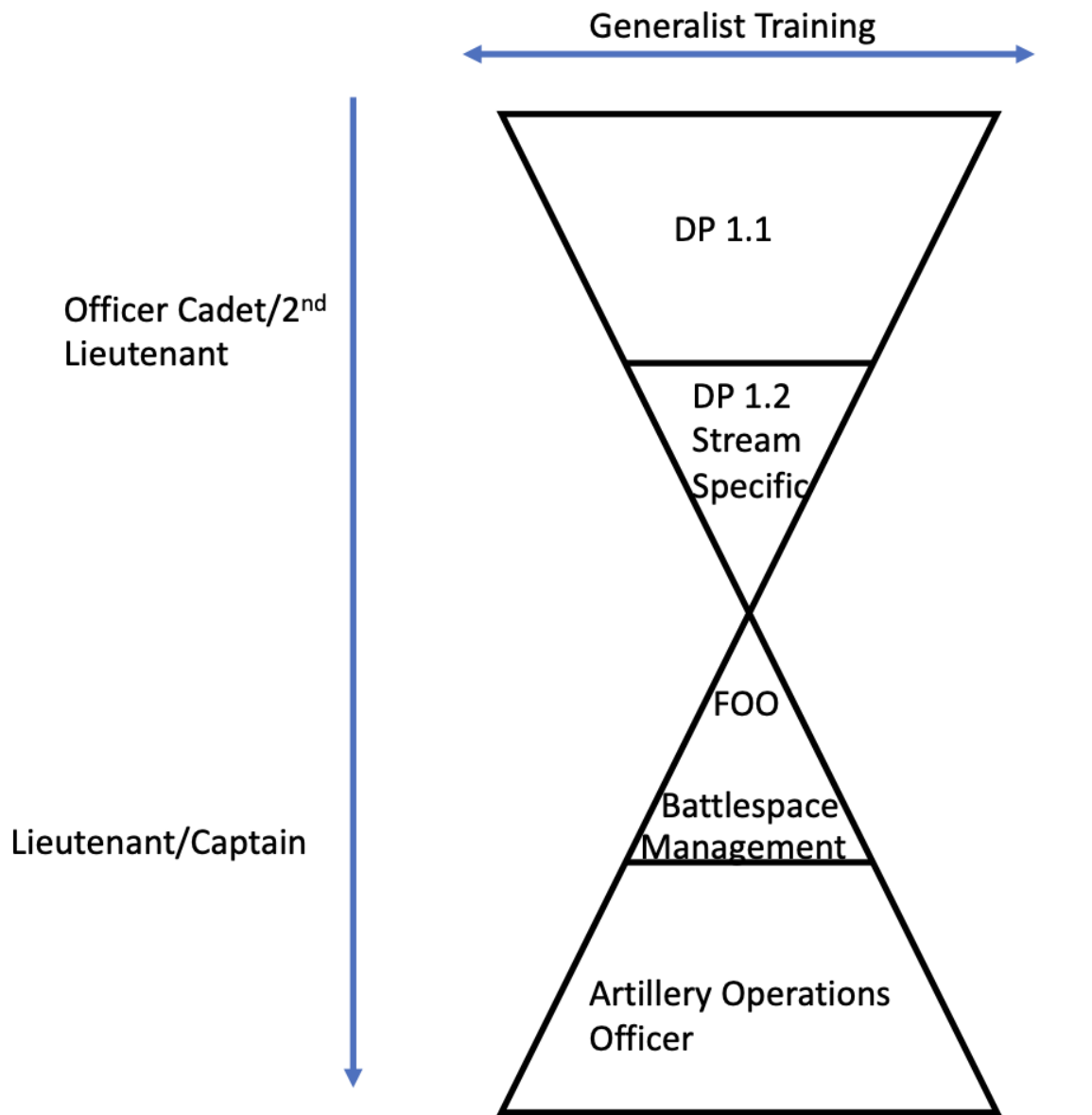
emphasis would be on understanding each stream's employment theory and training leadership qualities via reconnaissance assessments of each stream in a field environment. Candidates would then proceed to a stream-specific DP 1.2 course. This course would teach the detailed technical skills required to deploy and fight the associated systems for each stream and qualify the candidate for Troop Command during their first posting. Adoption of this method will produce candidates with a general understanding of all RCA streams and the technical knowledge required to operate as a troop commander while reducing training days and the burden on the training system.

Annexes:

A. Hourglass Design Method of DP 1 Artillery Training

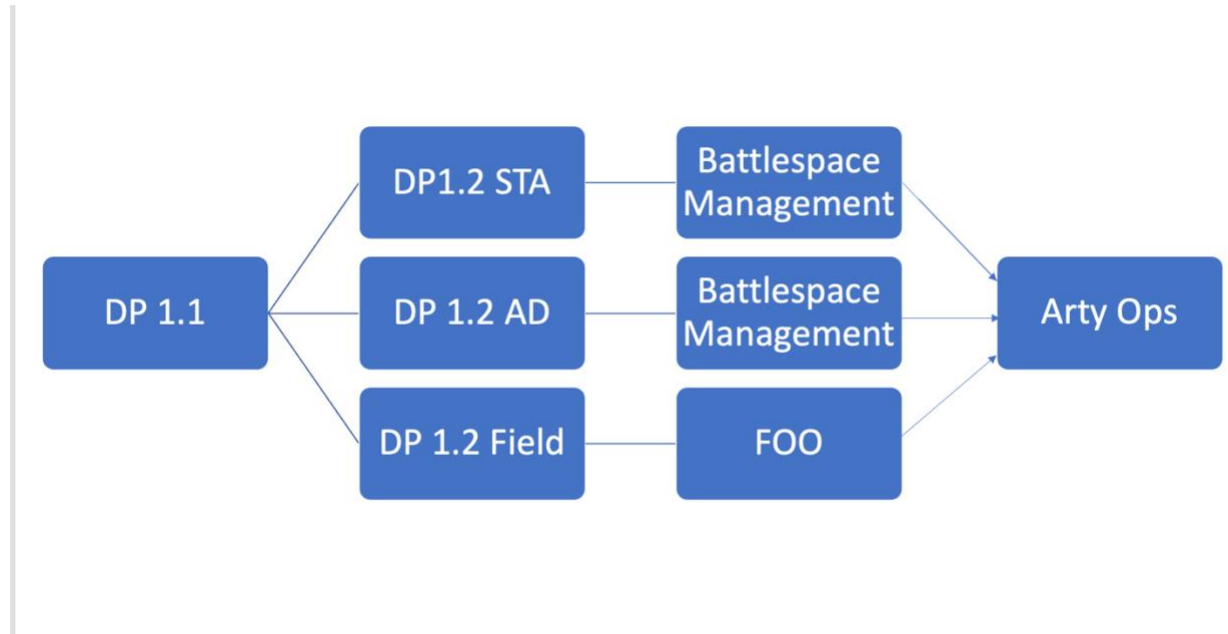
B. Training Progression

Annex A
Hourglass Training Design



FOO = Forward Observation Officer

Annex B
Training Progression



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