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SOLUTIONS FOR THE IDENTIFICATION STAGE OF THE PROCUREMENT CYCLE

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SERVICE PAPER - ÉTUDE MILITAIRE

**SOLUTIONS FOR THE IDENTIFICATION STAGE OF
THE PROCUREMENT CYCLE**

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SOLUTIONS FOR THE IDENTIFICATION STAGE OF THE PROCUREMENT CYCLE

AIM

1. To inform the Director General Air Force Development (DG Air FD) of current Royal Canadian Air Force (RCAF) procurement difficulties and provide recommendations to improve the identification stage of the procurement cycle.

INTRODUCTION

2. Defence procurement is arguably the most complex activity the Canadian Armed Forces (CAF) undertakes bar warfighting. It is an activity mired by political, economic, environmental, and defence interests that are not necessarily all aligned. A project's lifespan can outlive governments, industry executives, and defence leaders making it an almost impossible task to deliver a product which satisfies continuously changing stakeholders. In the Government of Canada's latest defence policy, Strong Secure Engaged (SSE), a number of initiatives were listed "to streamline defence procurement to better meet the needs of the military and deliver projects in a more timely manner."¹ These initiatives are broad ranging and lack specificity but provide a good starting point for analysis.

¹Canada, Department of National Defence, *Strong, Secure, Engaged: Canada's Defence Policy* (Ottawa: National Defence, 2017), 75.

3. The Department of National Defence's (DND) project management lifecycle includes 5 stages: project identification; options analysis, definition; implementation; and, close-out.²

Although there are several challenges throughout a project's lifecycle, this service paper will focus on the first stage, project identification. The RCAF controls the first stage of their given project's life and is therefore responsible for establishing a solid foundation from which a project is built. The RCAF, however, may not be well suited to lead the project identification stage or any other stage. This is true for every element, not just the RCAF. As SSE clearly highlights, "70 percent of all projects have not been delivered on time"³ and this can be partially attributed to the lack of project management experience within each element. The recommendations made in this service paper focus on improving the identification stage but can also serve as a guide to improving subsequent stages of a project's life. Further study is required to validate this assumption.

DISCUSSION

4. The focus of the identification stage "is on identifying and confirming the need, not on the solution. Before proceeding to the options analysis stage, high-level requirements are reviewed by the Defence Capabilities Board and an Independent Review Panel for Defence Acquisitions."⁴ This stage, once formally assigned to DG Air FD, is normally given two years for completion. SSE sets out an initiative to "reduce project development and approval time in the Department of National Defence by at least 50 percent for low-risk and low-complexity

² Canada, Department of National Defence, "Defence Acquisition Guide 2016," last accessed 2 February 2018, <http://www.forces.gc.ca/en/business-defence-acquisition-guide-2016/index.page>.

³ Canada, Department of National Defence, *Strong, Secure, Engaged: Canada's Defence Policy* (Ottawa: National Defence, 2017), 74.

⁴ Canada, Department of National Defence, "Defence Acquisition Guide 2016," last accessed 2 February 2018, <http://www.forces.gc.ca/en/business-defence-acquisition-guide-2016/index.page>.

projects through improved internal coordination, increased delegation and strengthened approval processes.”⁵ In reviewing the RCAF’s role leading up to and including the project identification stage, four areas of concern are identified and if rectified could potentially help reduce a given project’s overall development time. The discussion section will begin by providing a high-level review of the RCAF’s role leading up to and including the identification stage broken down by area of interest. The concern will then be highlighted, and potential solutions will be proposed.

5. Area of Interest. “The procurement process begins with the identification of a requirement,”⁶ and this responsibility currently resides with each individual element; either Navy, Army, Air Force, or Special Operations Force (SOF).

6. Concern. The process of identifying requirements is *stovepiped* within individual elements, which prevents input from other elements until perhaps later stages in a project’s lifecycle. The Canadian Armed Forces (CAF) participates in joint operations at home and abroad. Capability deficiencies in a joint environment may be overlooked or duplicated across elements if the process is *stovepiped* within each individual element.

7. Potential Solution. The process of identifying capability deficiencies within elements and across elements may be improved by establishing a Joint Continuous Capability Improvement

⁵ Canada, Department of National Defence, *Strong, Secure, Engaged: Canada's Defence Policy* (Ottawa: National Defence, 2017), 75.

⁶ Canada, Department of National Defence, *Procurement Administration Manual Revision 86* (Ottawa: National Defence, 2018), 25.

Team (JCCIT). “The term continuous improvement is rooted in the Japanese management concept of kaizen, and can be simply defined as a process of incremental improvement initiatives that focus on increasing successes and reducing failures.”⁷ Continuous improvement in an organization can be achieved by establishing a team focussed on improving the organization. Studies suggest that “the most effective outcomes tend to rely on methodologies that included continuous improvement teams or groups with both staff and managers.”⁸

8. The JCCIT can be established within a joint strategic-level headquarters and resourced with an empowered permanent staff focussed on identifying capability deficiencies at the strategic and operational level. Individual units from every element can feed tactical-level capability deficiencies to the JCCIT using the established Statement of Operational Capability Deficiency (SOCD) process. This can be completed by assigning a Unit Continuous Capability Improvement Officer (UCCIO) who would be responsible for collating tactical-level capability deficiencies at the unit and forwarding them directly to the JCCIT. The JCCIT would then compile all the capability deficiencies from every element, search for commonalities, establish priorities, and assign deficiencies to either a joint project team or an individual element; should the deficiency be element specific. This process would allow the CAF to holistically review capability deficiencies and remove elemental bias.

⁷ Jim Begley, Irwin M. Cohen and Darryl Plecas, *An Assessment of Surrey RCMP's Continuous Improvement Team* Centre for Public Safety and Criminal Justice Research, University of the Fraser Valley, 2015), 1.

⁸ *Ibid.*, 2.

9. Area of Interest. The RCAF's requirement identification process follows a bottom-up approach, where individual units identify capability deficiencies and advise their respective chain-of-command of the deficiency. This process requires buy in from subordinate commanders up to Commander 1 Canadian Air Division (Comd 1 CAD). If any subordinate commander disagrees with the individual unit's assessment of the deficiency, the process can be either halted or altered.

10. Concern. The bottom up approach is sufficient in determining current capability deficiencies but may lack insight in determining future capability requirements. It may also inhibit determining operational and/or strategic capability deficiencies as it is tactically focussed.

11. Potential Solution. As previously suggested, forming a JCCIT would not only facilitate a bottom up approach but would also permit a forum for operational and strategic capability deficiencies to be proposed and analyzed. Forecasting future capability requirements; however, will continue to be an extremely difficult task. Predicting future threats and determining capabilities required to counter them is impractical. A better solution may be to utilise the JCCIT to investigate future innovations and capitalize on them for CAF use. In addition, as predicting future threats is impractical, the JCCIT can be organized to quickly react to future threats by empowering them to initiate projects and complete the identification stage at their discretion.

12. Area of Interest. Once Comd 1 CAD receives capability deficiency requirements, they are compiled and prioritized. The top twenty-five capability deficiencies are then sent to Comd RCAF for approval and dissemination down to DG Air FD.

13. Concern. The process of prioritizing capability deficiencies in a single limited list may exclude capability deficiencies that can easily be rectified when compared to higher priority deficiencies. This can lead to missed opportunities, especially in a time sensitive and budget constrained environment. For example, there could be a deficiency that does not make the top 25 list, but its scope could permit it from being rectified within budget and allocated time whereas every other deficiency in the top 25 list could not.

14. Potential Solution. A binned priority system may better capture capability deficiencies that can be rectified within a given budget, scope, and time. Binning RCAF priorities within cost, scope, and time envelopes may also allow for a more efficient process by utilizing all available assets to rectify the capability deficiency.

15. Taking cost for instance, three bins can be used: \$5 million or less; \$5 million to \$100 million; and, \$100 million or more. Each capability deficiency is assigned a Rough Order of Magnitude (ROM) cost and assigned to the associated bin. Capability deficiencies within each cost bin are then prioritized. Finally (solely looking at cost), the top priorities which best fits a given budget are selected. This process can be repeated for scope and time. Scope bins can be

based on predicted project complexity or risk and time bins can be based on predicted project duration.

16. Area of Interest. DG Air FD assigns each capability deficiency, in order of priority and based on budget constraints, to the Director of Air Requirements (DAR) for action. DAR then assigns each capability deficiency to a Project Director (PD), a project is created, and the identification stage officially begins.

17. Concern. Projects, under DG Air FD, are initially led by PDs. PDs are normally RCAF officers at the rank of Major or Lieutenant-Colonel either in their first or second staff tour at their given rank. Most PDs initially lack experience in project management and the processes by which DND projects follow. An RCAF officer is expected to be posted in a PD position for two to four years. Within this period, the RCAF officer must undergo PD training to obtain a PD qualification. The PD qualification is obtained following the completion of multiple separate courses given by various organizations. The PD qualification process can take up to twelve months depending on course availability and loading priorities. The lack of project experience in RCAF PDs can have a detrimental impact to the length of time it takes to complete the identification and follow-on options analysis stage. It may also impact the quality of the foundation a given project sits on prior to entering the definition stage. Some projects may go through multiple PDs in the initial stages further delaying projects because of the lack of continuity.

18. Potential Solution. SSE proposes to “grow and professionalize the defence procurement workforce in order to strengthen the capacity to manage the acquisition and support of today’s complex military capabilities.”⁹ This proposition is logical but how can it be implemented?

19. Military officers currently fill the role of PD as they represent the customer or end-user of any given capability. For this reason, PDs should continue to be military officers, but they should be given the proper training, tools, techniques, procedures and experience. This can be done multiple ways but the overarching limiting factor is the duration of military officer posting cycles.

20. To further professionalize the procurement workforce and solve the problems associated with postings, a new military officer feeder trade responsible for project management should be created (ie. Project Officer (PO) trade). The PO trade can resemble that of a joint support trade such as Public Affairs or Intelligence. POs would be focussed on project management and be guided by the Project Management Profession. The PO trade would be open to any trade qualified officer with a *to be determined* minimum in trade experience (ie. one operational tour of duty). POs should be proportionally balanced between each element. The PO trade would allow for career progression by associating complexity of projects to rank. POs would fill the

⁹ Canada, Department of National Defence, *Strong, Secure, Engaged: Canada's Defence Policy* (Ottawa: National Defence, 2017), 75.

role of PDs and Project Managers (PMs). The PO trade would provide “the addition of new procurement specialists and enhanced training and professional accreditation for”¹⁰ DND.

CONCLUSION

21. This service paper reviewed the process by which the RCAF identifies capability deficiencies and initiates projects. The processes leading to and including project identification were broken down by area of interest. Four concerns were highlighted, and recommendations were provided for each. Three of the four potential solutions provided must involve higher headquarters for support and initiation.

22. The process of identifying capability deficiencies within elements and across elements may be improved by establishing a Joint Continuous Capability Improvement Team (JCCIT). The JCCIT would compile all the capability deficiencies from every element, search for commonalities, establish priorities, and assign deficiencies to either a joint project team or an individual element; should the deficiency be element specific. This process would allow the CAF to holistically review capability deficiencies and remove elemental bias.

23. The JCCIT would also facilitate a bottom up approach in identifying deficiencies by enabling tactical-level units to submit capability deficiencies directly to the JCCIT. The JCCIT would enable a forum for operational and strategic capability deficiencies to be proposed and

¹⁰*Ibid.*

analyzed. The JCCIT could investigate future innovations and capitalize on them for CAF use. Finally, the JCCIT can be organized to quickly react to future threats by empowering them to initiate projects and complete the identification stage at their discretion.

24. 1 CAD's process of prioritizing capability deficiencies in a single limited list may exclude capability deficiencies that can easily be rectified when compared to higher priority deficiencies. A binned priority system may better capture capability deficiencies that can be rectified within a given budget, scope, and time. Binning RCAF priorities within cost, scope, and time envelopes may also allow for a more efficient process by utilizing all available assets to rectify the capability deficiency.

25. In the Government of Canada's latest defence policy, several initiatives were listed to improve defence procurement to deliver projects in a timelier manner. The initiative to "grow and professionalize the defence procurement workforce"¹¹ can be achieved by creating a Project Officer (PO) trade which specializes in project management. The creation of a PO trade would solve the problems associated with inexperienced Project Directors/Managers and the problems caused by military posting cycles.

26. Project management is crucial to the success of any military and it should be given the attention and resources it deserves to succeed. The solutions provided to improve the RCAF's

¹¹*Ibid.*

identification stage of a project's life can be used to solve issues along subsequent stages. For instance, the creation of a PO trade may bring much needed expertise to all five stages of a project's life.

RECOMMENDATION

27. It is recommended that DG Air FD:

- a. seek concurrence from the Chief of Force Development to establish a tiger team to review and perfect the findings within this service paper and seek appropriate permissions to implement the findings; and,
- b. seek concurrence from Comd 1 CAD to revisit the process by which capability deficiencies are prioritized in accordance with the potential solution delineated in paras 14 and 15;

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