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CAF SUSTAINMENT OPERATIONS: PERFORMANCE-BASED LOGISTICS, METRICS AND A TEAM-BASED MANAGEMENT PLAN AS THE ARBITERS OF GOOD BEHAVIOUR

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JCSP 45

Solo Flight

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CAF SUSTAINMENT OPERATIONS: PERFORMANCE-BASED LOGISTICS, METRICS AND A TEAM-BASED MANAGEMENT PLAN AS THE ARBITERS OF GOOD BEHAVIOUR

The Canadian military is a huge and diverse organization, with some hundred thousand military personnel,¹ regular and reserve force, thousands of public servants and countless other stakeholders (contractors, industry partners), and a large portfolio of infrastructure, spread across multiple locations in Canada and around the globe. The policy management of human resources and the use of military equipment, specifically as it relates to sustainment activity, is often sluggish, and ineffective, providing for a system that is inefficient and costly. Ultimately, the operational responsiveness of military forces to meet the government of Canada's mandate is compromised.

Using the Walt and Gilson model for policy analysis, can provide for a new look of the Canadian Armed Forces' (CAF's) policies. With industry, in recent times, moving to more performance based logistics (PBL) type arrangement(s), it behooves the Canadian military to emulate such a model, where and when possible, to demand more from its forces in the way of performance and best value. As has been noted, "The military should—and can—operate more efficiently. One area that has potential for major savings is logistics."² How the military

¹ "Canada Military Strength (2020)." *Global Fire Power*, Last Update Unknown.
https://www.globalfirepower.com/country-military-strength-detail.asp?country_id=canada

² Spring, Baker. "Performance-Based Logistics: Making the Military More Efficient." *Heritage Foundation*, No2411. Updated 6 May 2010. <https://www.heritage.org/defense/report/performance-based-logistics-making-the-military-more-efficient>, 4.

mobilizes and sustains itself has evolved over time. The military needs to keep pace with such innovation and best practices.

When discussing principles of efficiency in terms of resource management, the topic often turns to what is determined as being 'best value'. Best value is considered as the "...expected outcome of an...[activity] that, in the government's estimation, provides the greatest overall benefit in response to the requirement."³ It is a balance that must be undertaken to streamline a capability, in this case being people and equipment, for cost and performance. It is described herein to provide a foundation for where the CAF needs to go in reference to its force competence and management.

Canada has shaped its military structure, through the most recent transformation, in the mid-2000s, with a view "to meet its operational objectives at the lowest overall cost to the Canadian Government."⁴ Demands are heavy on forces, and we are constantly reminded to do more with less, with funding remaining an ongoing concern. With such entities as Canadian Joint Operations Command (CJOC), and Strategic Joint Staff (SJS), and relevant supporting pieces like Canadian Forces Joint Operational Support Group (CFJOSG) and Canadian Materiel Support Group (CMSG), the CAF has a structure in place, with operational units across the

³ US Department of Veteran Affairs. "Office of Procurement, Acquisition and Logistics (OPAL)." Last Updated 23 March 2018. <https://www.va.gov/opal/nac/fss/bestValue.asp>

⁴ Potvin, Joseph GMA. "The Integration of the Canadian Forces Logistics System and its Effect on the Operational Capabilities of the Canadian Military." University of Manitoba: National Library of Canada. October 1996, 10.

country and operational hubs overseas,⁵ to ensure that logistics and the sustaining of military operations is prioritized. The question remains as to why both personnel and equipment often remain inadequate for the requisite operation or activity.

The Walt & Gilson model identifies three pieces, being context, content and process, working together, all influencing actors (in this case, being CAF members and its various internal organizations), creating a specific outcome.⁶ The context surrounding an issue, as they point out in their article, is a key aspect to bring understanding, as it is the work environment that can shape and influence actors most readily. When looking at much of the context in this particular case, industry partners, for the majority, provide the military the ‘means’ for its effectiveness, by producing and supplying the necessary equipment.⁷ The military utilizes this to create the ‘ends’ required, that being, bringing together personnel and equipment to provide outcomes. It is this work environment within the CAF logistics field that is need of change.

Personnel are often not held accountable for performance, with bad behaviour rewarded. The Canadian military human resource makeup, involves a vertical progression type hierarchal structure, whereby all personnel strive to progress up through the ranks, not just to gain further

⁵Government of Canada, “Operational Support in Canada.” Modified 19 July 2017.
<https://www.canada.ca/en/department-national-defence/services/operations/military-operations/conduct/support/units.html>

⁶ Walt, Gill, and Lucy Gilson. "Reforming the Health Sector in Developing Countries: the Central Role of Policy Analysis." *Health Policy and Planning* 9, no. 4 (1994), 354.

⁷ Potvin, 26.

responsibilities, experiences and interests, but ultimately as it is the single factor in getting additional pay (outside the limited pay increments by rank).⁸ There is no real lateral progression options within the CAF. Along with this, military members sign a contract for a specific period of service. As long as they work diligently and in accordance with the Queen's Regulations and Orders (QR&Os), within the military's ethical norms⁹, and standards of universality of service¹⁰, the member can continue to be gainfully employed. Personnel strive upward mobility vice workplace satisfaction and performance. People then "...can too easily pass responsibility for their work to others, or hide in the anonymity of the structure or behind the rules."¹¹ The issue with such a work force model, especially in today's environment, is that the CAF becomes an inefficient organization not maximizing on its labour pool, and also not necessarily getting the best value.

Although the aforementioned is prevalent across the CAF, it is abundantly clear when looking at sustainment activities within the military. Examples abound, as with the OP HESTIA after-action report (AAR), which points to how materiel was sent to the country, after it had gone through a devastating earthquake in 2010, with some being completely unusable. Various

⁸ Government of Canada, National Defense. "Pay Overview for the Military." Date modified 17 October 2019.

⁹ Government of Canada, National Defense. "Canadian Forces Code of Values and Ethics. Date modified 9 March 2020. <https://www.canada.ca/en/department-national-defence/services/benefits-military/defence-ethics/policies-publications/code-value-ethics.html>

¹⁰ Defense Administrative Orders and Directives (DAOD) 5023-0, dated 19 May 2019.

¹¹ McConville, Teri. "The principles of management applied to the defence sector." In *Managing Defence in a Democracy*, edited by Laura R. Cleary and Teri McConville. London: Routledge (2006), 112.

military pattern vehicles were loaded on a ship bound for Haiti, many being unserviceable. As well, winter kit and equipment was sent to Haiti in error. As one article noted at the time, “Members of Canada’s disaster relief team deployed to...Haiti without proper gear and training” and the “...team lost control over what got flown into the tiny Caribbean nation...hampering the delivery of supplies needed to treat people...”¹²

A recent report from the Office of the Auditor General of Canada noted that having effective capabilities “...depends on military equipment (ships, submarines, airplanes, helicopters, and land vehicles) being available and kept in good working condition and having the necessary trained personnel.”¹³ The report’s conclusions included a finding that “...for six types of equipment examined...National Defence did not adequately manage the resources used to support military equipment in a cost effective manner...”¹⁴ in order to meet CAF’s operational requirements. In many cases such poor performance is driven by supply chain infrastructure not being able to handle the need, or the through lack of having appropriate policies and procedures in place. Unfortunately, currently there are no real incentives for a military member to achieve optimized performances. The processes in place afford waste and complexity, which then drives

¹² Auld, Alison. “Military rushed into Haiti unprepared, report says.” *The Globe & Mail*, 9 July 2010. Updated 30 March 2019. <https://theglobeandmail.com>

¹³ Office of the Auditor General of Canada. “Report 7 – Operating and Maintenance Support for the Military Equipment – National Defence.” (2016). http://www.oagbvg.gc.ca/internet/English/parl_oag_201611_07_e_41836.html

¹⁴ Ibid, Report 7.

down the overall performance of the military. A system that measures and assures performance is the answer.

Canada, in the last few years, has been operating on 24 named operations, with very limited numbers on some of them.¹⁵ Availability of resources, or rather lack of serviceable and ready-to-use force packages is a definite constraint. Canada's ability to project its national power, through support to national and international operations is adversely affected. Additionally, there are many vacant positions across the organization, as well as significant numbers of personnel being identified, through the pre-deployment process, as being non-operational. Similar issues are experienced with availability and currency of the military's equipment and material resources. It has become quite difficult for the CAF to maintain much of its aging fleets of aircraft, one example being the CF-18 Hornets. The Canadian Army also suffers such issues, with vehicles such as the Light Support Vehicle Wheeled (LSVW) coming to mind, and naval assets such as the Victoria-class submarines have had limited use, being mired in problems and have required huge upgrades and overhaul.¹⁶

Limitations to bureaucratic structures "...especially in the large scale organizations that makeup the public sector, [such as the Department of National Defense (DND)], are that it is

¹⁵ Government of Canada, National Defense. "Operations List." Date modified 7 May 2020. <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/list.html>

¹⁶ Government of Canada. National Defense. "Defense Equipment." Modified 24 January 2019. <https://www.canada.ca/en/services/defence/caf/equipment.html>

often difficult to distinguish who is doing what, where activities are duplicated, which functions are consuming resources, and where performance can be improved.”¹⁷ Interestingly, as it relates to recent CAF ammunition reviews, one of the recommendations stated “...that SJS complete the development and implementation of a performance management framework for the Ammunition Program.”¹⁸ This is exactly the type of system that is needed across the entire CAF sustainment structure. It may need to be a “...hierarchical structure [with] tight controls...[or possibly] a loose structure in other areas,”¹⁹ but most importantly one that uses “...measurement...to occur at appropriate points.”²⁰ Metrics would allow organizational efforts to be focused on high quality output, in accordance with intended goals.²¹ This is the first important piece of the puzzle in bringing about change.

In one recent Chief of Review Services (CRS) audit, the findings indicated that, in some cases, “CAF assets have not always been redeployed in an appropriately sequenced and phased manner.”²² Additionally, many operations lack the completion of a Lessons Learned (LL), which would assist in developing efficiencies in the system.²³ Such findings point to areas where there

¹⁷ McConville, 121.

¹⁸ Government of Canada. National Defense. “Audit of Ammunition and Explosives Management” 12559-3-008 (ADM(RS)), May 2018, iii.

¹⁹ McConville, 112.

²⁰ Ibid, 118.

²¹ Ibid, 119.

²² Chief of Revenue Service. National Defense. “Evaluation of the Department of National Defence Contributions to Humanitarian Operations, Disaster Relief Operations and Non-combatant Evacuation Operations.” 1258-180 (CRS), October 2013, v.

²³ Ibid, v.

is a waste of resources and a lack of a process driven system to overcome any issues. The Walt and Gilson model point out that actors, in this case being the human resources within CAF, are influenced by the context of their work environment.²⁴ By reshaping that environment through a new policy construct would ensure success.

Mr. Gary Dessler's book, entitled *Human Resource Management*, identifies key principles for the efficient management of human resources. He states that "...human resource management means formulating HR policies that produce...competencies and behaviors the [organization] needs to achieve its strategic goal."²⁵ The foundation of this is to have a management planning process in place, with the result being a strategic management plan.²⁶ Human Resource issues could then be addressed, as they "...lie at the heart of sustainable organizational success."²⁷

As well, and previously noted, metrics are an important part of this process, as they would allow the CAF leadership to have a view and understanding of the overall performance of their sustainment forces, both in people and equipment. How many military patterned vehicles are serviceable, with how many vehicle technicians? What is the serviceability and work rate? What availability exists for the Royal Canadian Air Force's (RCAF's) aircraft fleets, and what level of mission success have they achieved when deployed? What is the maintenance or supply down-

²⁴ Walt & Gilson, 355.

²⁵ Dessler, Gary. "Human Resource Management" 15th ed. London, UK: Pearson Education Limited (2017), 78.

²⁶ Ibid, 69.

²⁷ Ulrich, Dave, Jon Younger, Wayne, Brokbank, and Mike Ulrich. "HR from the Outside In: Six Competencies for the Future of Human Resources." New York: McGraw-Hill (2012), 1.

time as it relates to Aircraft on Ground (AoG)? By tracking data through use of key indicators and metrics, an organization like CAF, can then determine areas of concern, for improvement or even as success elements. Such analytics can quickly identify units needing improvements.²⁸ Incentives can then be determined that would drive better behavior(s). Any performance improvements can also be tracked and traced in such a system.

Within CAF, one key aspect that incentivizes personnel, is being apart of a team. This can and should be leveraged to produce desired outcomes. Such an aspect can be captured in the strategic management plan, "...which would match its internal strengths and weaknesses with its external opportunities and threats..."²⁹ A team culture also promotes a process that is collective and cooperative in nature, ensuring buy-in from all. A management plan with a team culture at its core is a second important piece to the puzzle, in ensuring positive change.

The net result of such a plan and system is to promote high-performance work practices.³⁰ A solution set that follows a PBL construct, and key resource management principles to ultimately lean out waste and remove complexity in the process would guarantee that end result. As Canada's "...combat capabilities grow, the logistics system must adapt. Performance-based logistics is an approach that organizes logistics around these increasing combat capabilities, offering huge

²⁸ Dessler, 78.

²⁹ Ibid, 69.

³⁰ Ibid, 83.

savings...in the process.”³¹ The key aspect to a PBL approach is that it “...measures the outcomes in terms of how the system meets desired performance parameters.”³²

When looking at the F-35 Joint Program Office (JPO), with eight partner nations supporting the development, production and sustainment of three variants of a joint strike fighter capability³³, we can appreciate its complexity, yet also the streamlining of an organization towards an enhanced performance concept. This is a concrete example of a PBL environment, whereby the efficient management of human resources while sustaining operations is the result. The CAF’s resource construct is in need of incorporating such changes. In the F-35 example, all participating nations recognize the benefits of a partnership and of collaboration. This example is one of many within the United States Department of Defence (DoD), which has PBL approaches across a broad swath of its organization.³⁴ Many of the program management offices within DoD, as well as the site support services at a myriad of bases follow this model. A PBL construct thus provides a third important piece of the puzzle to ensuring real change and improvement in the system.

When a PBL construct, use of metrics, and a strategic management plan with team culture at its core are synthesized, the result is outcome based partnerships. This means that all parties are held appropriately to account for their portion of the supply chain or logistics piece

³¹ Spring, 4.

³² Ibid, 2.

³³ Memorandum of Understanding, *Production, Sustainment and Follow-on Development of the Joint Strike Fighter (JSF PSFD MOU)*, dated December 2009, updated April 2010, 4.

³⁴ Spring, 2.

within the CAF sustainment world. It does not mean that personnel alone are held accountable, but instead hold performance outcomes as the marker which to strive to, and thus analyze anything that impedes or hinders such outcomes, developing solutions to streamline the process.³⁵ Simply put, "...performance-based strategies buy outcomes, not products or services."³⁶ In essence, with a PBL mindset, logistics pieces, in support of sustainment activities, whether it be warehousing, transportation of material to and from the warfighter, the retrograde system or any other such activity, would afford success to CAF's operations.

The pieces that have been identified, if applied to the Canadian military workforce, would in essence create a partnership. Benefits to such a partnership would include the workforce having a deepened vested interest in the success of the enterprise or organization, a reduction in overall costs, and also a reduction in risks to the success of operational activities. As well, such a partnership can create long-term stability³⁷ within the CAF. A spirit of collaboration would evolve, as part of the CAF culture. Important to note in all this, is that "...teams and partnerships help to integrate activities that are otherwise disconnected."³⁸ Such partnerships

³⁵ Ibid, 2.

³⁶"Performance Based Logistics: A Program Manager's Product Support Guide." Department of Defense (DoD), Defense Acquisition University (DAU) Press (2005). 6.

³⁷ Harrison, Alan, and Remko Van Hoek. "Logistics Management and Strategy: Competing Through the Supply Chain." 5th ed. London, England: Pearson (2014), 264.

³⁸ Harrison and Van Hoek, 202.

have seen great success in the commercial world, and with some evolution, such principles can be applied to the military world as well.

This should all result in the determination that the CAF can and should change its model to include a PBL mindset, using metrics, to measure performance as an outcome and have a team based culture well developed in its strategic management plan. This will necessitate a 5th generation concept or way of thinking, whereby the CAF expects specific outcomes and uses metrics to track levels of success through to completion. All organizations should continuously look for improvements in their business processes, the Canadian military is no exception. Through adherence to this new way of thinking and the logistics system put in place, following established logistics principles, the CAF can vastly improve its capabilities,³⁹ and overall effectivity, all the while removing cost from its model.

³⁹ Eccles, Henry E. "Military Concepts and Philosophy." Rutgers University Press: New Jersey (1965), 71.

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