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The Lifecycle Management of Materiel**

LCdr M.C. Butler

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SOF Wants What?: The Lifecycle Management of Materiel

AIM

1. The lifecycle management of materiel is critical to all the environments within the Canadian Armed Forces. For that of the Canadian Special Operations Force Command (CANSOFCOM); however, it could not be any more significant. While most lifecycle plans are as simple as replacement with the newer model after a set period, for the specialized units within CANSOFCOM, this is often not the case.¹ The aim of this paper is to identify strengths and potential weaknesses of policy and organizational structure as it applies to the lifecycle management of material with CANSOFCOM. This reflectional paper focuses on organizational structures of CANSOFCOM and the Assistant Deputy Minister (Materiel) (ADM (Mat)), and current policies, orders, and directives as they relate to the management of materiel. Further development of work related to the specifics of managing the cataloguing (“Black” or classified) of operationally sensitive material provides an area for further development (i.e. establishment of specific criteria for classified cataloguing).

INTRODUCITON

2. The cost of equipment for SOF is low relatively compared to that of conventional forces; however, there is not unlimited funding available for the maintenance of technological superiority. “The gap between the Special Forces, the tip of the spear, and the conventional

¹ Etienne Gauthier, Interview Lieutenant-Colonel Gauthier, Jan 31, 2018.

forces will inevitably become narrower.”² The Commander of CANSOFCOM is interested in gaining an appreciation of the strengths and weakness regarding the lifecycle management of materiel within his command. Open to advice from outside of CANSOFCOM, students of the Canadian Forces College’s (CFC) Joint Command and Staff Program (JCSP) were canvassed for advice.³

3. This paper looks at the organizational structures of CANSOFCOM and other Canadian Armed Forces (CAF) ECS as well as USSOFCOM to make comparison and draw conclusions regarding the organizational structure itself. Further, it dives into CAF policy, orders, and directives to identify aids and potential roadblocks to SOF’s pursuit of technological superiority. A recent audit conducted by ADM (RS) of DGLEPM, as a sub-organization of ADM (Mat) was also used to identify how support processes between SOF units and LEP could potentially impact CANSOFCOM’s lifecycle management of materiel. Finally, in consultation for this paper authorities were engaged as follows: Lieutenant-Colonel E. Gauthier (CANSOFCOM J4), Lieutenant-Commander S. Aral (CANSOFCOM J4 Systems), and Commander R. Gerrior (CANSOFCOM J8).

² Gunilla Eriksson and Ulrica Pettersson, *Special Operations from a Small State Perspective: Future Security Challenges* (Cham, Switzerland: Palgrave Macmillan, Springer Nature, 2017). p. 20.

³ The following is the question as provided to students of JCSP. “Are there structure or policy changes that could be implemented to ensure CANSOF access to high-technology capabilities? Identify strengths and/or weaknesses in CANSOF’s life-cycle-material-management processes and suggest methods of improvement.”

DISCUSSION

4. CANASOFCOM as a greater organization continues to mature in terms of its materiel management. Previously the lifecycle management and force development responsibilities were under one authority in the Directorate of Force Development (DFD). The relatively recent introduction of the Directorate of Force Sustainment (DFS) within CANASOFCOM brings with it an opportunity for improved oversight and accountability for materiel over the entire course of its lifecycle.

5. Canada's latest Defence policy, *Strong Secure Engaged* (SSE), makes a significant commitment to all the Environmental Chiefs of Staff (ECS), but especially for SOF, in terms of ensuring continued advancement, it identifies six investments that are to be made.⁴ With one exception, all of these are related to increased/new technological capability or recapitalization of existing capabilities. This Defence policy provides leverage for CANASOFCOM's continued pursuit of technological superiority over the next two decades.

6. Aside from CANASOFCOM, the ECS conduct their own force development, but their force sustainment is conducted by ADM (Mat). Lifecycle management under ADM (Mat) is divided among Land, Sea, and Air. ADM (Mat) stakeholders extend well beyond just those in these distinctive environments, and in fact they extend to those beyond the bounds of the

⁴ Canada. Dept. of National Defence and Canada. Ministère de la défense nationale, *Strong, Secure, Engaged: Canada's Defence Policy* (Ottawa, Ont.: National Defence = Défense nationale, [2017]). p. 40.

Department of National Defence.⁵ Although not distinctly divided into its own subset of ADM (Mat), CANSOFCOM is supported through the Land division under the Director General Land Equipment Procurement and Maintenance (DGMLEPM). Within LEPM, the lifecycle management of materiel falls under the Equipment Management Team (EMT). This team is comprised of Technical Authorities, Lifecycle Materiel Managers, and Supply Managers.⁶ This is neither a strength nor weakness for CANSOFCOM, it is merely the common support element for the CAF.

7. Supported by LEP; however, CANSOFCOM is unlike the environmental commands in that it has its own integral Life-Cycle Materiel Managers (LCMM) and Supply Managers (SM). While the conventional CAF does have several LCMM and SM that focus on the furnishing of materiel, they also serve as advisors. Up to 20 percent of LCMM in LEP for instance spend up to 50 percent of their time dedicated to answer questions from the users of materiel or providing technical advice related to their line of materiel.⁷ By CANSOFCOM having their own team of LCMMs/SMs will ensure a dedicated and prioritized service, whereas in ADM (Mat) under LEP there would be potentially share service when an LCMM/SM who is carrying multiple portfolios, and supporting a wider range of Canadian Army (CA) needs.

8. At the core of materiel management is the identification and cataloguing of materiel. While the remainder of the CAF works in terms of a single Canadian Government Catalogue of

⁵ Government of Canada, *Evaluation of the Land Equipment Program* (Ottawa: Government of Canada, [2015]). p. 2.

⁶ *Ibid*, p. 1.

⁷ *Ibid*, p. 9.

Material (CGCM) or Canadian Government Cataloguing System (CGCS) for the recording of materiel, CANSOFCOM has another facet to materiel support in a classified or “Black” catalogue. As cataloguing of materiel is a critical function to the lifecycle management of materiel, it will be important to ensure that the cataloguing of operationally sensitive materiel is identified and recorded.⁸ A couple of the most important parts of classifying materiel, in terms of lifecycle management, are the assignment of Inventory Management Advisory (IMA) code, and the assignment of demilitarization (DeMil) codes. These codes establish restrictions on how and by whom the materiel is to be handled throughout its lifecycle. The IMA will set restrictions on who may demand or purchase the items. The DeMil code will assist in determining what level of destruction if any is required to securely dispose of the item. Again, a strength of having an integrated EMT is that special operations materiel is identified and catalogued internally and offers improved security of this sensitive information.

9. USSOCOM defines Special Operations – Peculiar materiel as “Equipment, materiel, supplies and services required for SO activities for which there is no Service-common requirement.”⁹ According to the United States Special Operations Command (USSOCOM) *Acquisition Management System Policy*, the Command has an Operations Review Board which is responsible for aspects of materiel management related to the Special Access Program.¹⁰ This board’s responsibility specifically includes the assessment and authority for approval of all transfers of SO-peculiar technology or equipment. This greatly mirrors the roles of the Canadian Equipment Program Manager (EPM) and LCMM as outlined in Defence Administrative Orders

⁸ Selena Aral, Interview Lieutenant-Commander Aral, Jan 31, 2018.

⁹ United States Government, *Acquisition Management System Policy* (Washington: ,[2001]). p. GL-3

¹⁰ *Ibid*, p. A-4.

and Directives DAOD 3013-1 *Disposal of Surplus Materiel*. Since CANSOFCOM has integral LCMM function within its DFS, there is an opportunity to provide an assessment of “Black” catalogued materiel for consideration of transition to the “Green” catalogue (CGCM/CGCS) on its way to an alternative application and diversion from disposal. This organizational consideration is seen as strength not only due to the consideration that it provides to the safeguarding of classified matter, but also for the benefits previously presented on the repurposing of SOF equipment and technology as it relates to ultimately providing SOF with greater potential access to valuable EMT members.

10. DAOD 3013-1 provides for ten generic ways in which to devolve or dispose of surplus materiel. At the top of this this is “alternative application.”¹¹ Under this directive, the practice of passing of SOF materiel to the conventional CAF it is likely to have a positive impact on CANSOFCOM’s ability to continue to maintain technologically superior equipment. Since the repurposing of this materiel extends the previously conceived lifespan of the materiel or in some cases extends its use when the operational life is not as originally anticipated. Although DAOD 3013-1 falls short of specifically requiring consideration be given to internal distribution of materiel, the Equipment Management Team (EMT) Handbook does provide this specific guidance.¹²

¹¹ <http://www.forces.gc.ca/en/about-policies-standards-defence-admin-orders-directives-3000/3013-1.page> Government of Canada, *Defence Administrative Orders and Directives 3013 Surplus Materiel* (Ottawa: Government of Canada.

¹² Government of Canada, *Equipment Management Team Handbook* (Ottawa: Government of Canada,[2004]). p.1-20.

11. A couple of real examples exist whereby the conventional CAF was able to benefit from the internalized repurposing of materiel from CANSOFCOM. First would be the redistribution of Night Vision Devices (NVD) which were originally purchased for use by a SOF organization, but rather than undergoing destruction at the end of their useful life in that organization, they were provide to the Canadian Army. Second was the Special Operations Rigid Hull Inflatable Boat (SORHIB), a 7-meter craft, which was purchased to support a SOF organization. Before the intended normal lifecycle of the vessel, the organization determined that a 9-meter vessel was required to meet their operational requirements. Rather than dispose of the smaller watercraft, these were offered to the Royal Canadian Navy to augment its small boat capability. These NVD, and small boats continue to provide value to the CAF and ultimately to the People of Canada.

12. To establish the entitlement for a new line item a Materiel Authorization document (MA doc) is required. A request for an MA doc is submitted to ADM (Mat) by the ECS continental 4 staff. For centrally managed items, once received by the respective DG, the impacted LCMM and SM are consulted for potential impacts.¹³ By having force development and force sustainment aligned within CANSOFCOM, and given the relative flatness of the command, it is well situated to follow these processes in a timelier manner than the other ECSs. This is an organizational strength of CANSOFCOM in terms of realizing the integration of new developed technology in a SOF unit in a timelier manner.

¹³ Government of Canada, *Supply Administration Manual* (Ottawa: Government of Canada,[2017]). Pages not numbered found in section 2.2 Plan.

13. Conclusions of the 2015 audit of DGLEPM, ADM (RS) note that the CAF is proficient at providing support to operations. Where ADM (Mat) is at times lacking is in the routine support for less than high readiness requirements or those for operational requirements.¹⁴ This makes materiel management for SOF units even more important. Although questioning LEPM's ability to support routine operation, the report does not entirely fault one organization. It speaks to the need for stakeholder engagement with its primary client, the CA.¹⁵ The fact that it does not mention SOF engagement should be taken with caution; SOF engagement is or should be required. The audit provides a specific recommendation that "DGLEPM should work with the CA to implement fleet management strategies." This is in response to comments provided during interview audits regarding a shortage of vehicles, parts and equipment. In speaking with CANSOFCOM J4 Systems it is notable that a shortage of parts for the Heavy Logistics Vehicle Wheeled (HLVW) has been of concern in some SOF units.¹⁶ As such CANSOFCOM as a user Standard Military Pattern (SMP) vehicles should also be represented during the formulation and prioritization of fleet management strategies.

14. While certainly not exclusive to CANSOFCOM, data integrity is important to materiel lifecycle processes. As noted in their review of DGLEPM, ADM Review Services (RS) found that there had been at time a lack of availability and reliability of data in the Defence Resource Management Information System.¹⁷ Since CANSOFCOM is both supported by LEPM, and self-supporting in many activities it is likely that a review of CANSOFCOM DRMIS data would

¹⁴ ADM (RS) Government of Canada, *Evaluation of the Land Equipment Program...* p. 14.

¹⁵ *Ibid*, p. 14-15.

¹⁶ Selena Aral, Interview Lieutenant-Commander Aral, Jan 31, 2018.

¹⁷ ADM (RS) Government of Canada, *Evaluation of the Land Equipment Program* (Ottawa: Government of Canada,[2015]). p. A-1.

reveal similar concerns. Where it gets more complex for SOF units is the additional layer in the use of a classified system for recording operationally sensitive materiel. This is not to suggest it should not be recorded in this way, but points to an additional opportunity for data to be missed or become unreliable. ADM (RS) provided a recommendation to DGLEPM to “identify the activities and associated resources to increase the accuracy of information in DRMIS. As SOF units provide a great deal of self-support, this would have potentially greater applicability to CANSOFCOM.

CONCLUSION

15. The lifecycle management of materiel within CANSOFCOM continues to develop. The very nature of Special Operations creates the need to have materiel identification which is classified above that of the unclassified materiel catalogue, CGCM/CGCS, used by the remainder of the CAF. SOF’s “Black” catalogue allows further justifies the organizational structure that allows it to benefit from the bolstered integral support that CANSOFCOM gains in its EMT functionality under DFS. This is balanced by the risks associated with multiple or duplicate systems. The use of multiple systems for the recording of materiel status (location, serviceability, quantity etc.) increases the opportunity for shortcoming in data integrity. By designing strong processes, and correctly resourcing those responsible for the entry and tracking of materiel should be sufficient to mitigate this risk to an acceptable level.

16. Reliant on ADM (Mat) as is the case for the other ECSs, CANSOFCOM’s flat organizational structure allows greater agility, and shortened timelines to achieve its materiel

aims. Notwithstanding the size difference between CANSOFCOM and USSOFCOM, the similarities between them in terms of materiel security is strength of the organization.

17. While it has been presented that SOF procurement is not as costly overall as that for conventional forces. Policies that require the consideration of repurposing of materiel to other branches of the service provide a benefit to not only those ECS gaining the equipment or technology. Since there is competition for priorities within DGLEPM, any time saved in a process for the CA in turn results in the potential to focus greater attention on SOF procurement.

18. CANSOFCOM has a vested interest in the performance of DGLEPM. As a stakeholder CANSOFCOM should be looking to ensure that SOF strategic objectives are being achieved through the support that it receives from LEPM. CANSOFCOM would be well served by having its interests specifically examined in future ADM (RS) reviews of DGLEPM.

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