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SUPPLYING THE CANADIAN ARMED FORCES

Report of the Standing Committee on Public Accounts

Kelly Block, Chair

**DECEMBER 2020
43rd PARLIAMENT, 2nd SESSION**

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NOTICE TO READER

Reports from committee presented to the House of Commons

Presenting a report to the House is the way a committee makes public its findings and recommendations on a particular topic. Substantive reports on a subject-matter study usually contain a synopsis of the testimony heard, the recommendations made by the committee, as well as the reasons for those recommendations.

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THE STANDING COMMITTEE ON PUBLIC ACCOUNTS

has the honour to present its

FOURTH REPORT

Pursuant to its mandate under Standing Order 108(3)(g) and the motion adopted by the committee on Thursday, November 5, 2020, the committee has studied Report 3, Supplying the Canadian Armed Forces—National Defence, of the 2020 Spring Reports of the Auditor General of Canada and has agreed to report the following:



SUPPLYING THE CANADIAN ARMED FORCES

INTRODUCTION

In order to meet its operational requirements, the Canadian Armed Forces (CAF) must be well trained and properly equipped. Its “68,000 regular force members and 30,000 reserve force members must also be supported by a supply chain that provides them with the materiel they need, when needed. This materiel includes the goods military members use regularly, such as uniforms, specialized clothing, and rations. It also includes the equipment and spare parts needed to operate, maintain, and repair large fleets of vehicles, ships, and aircraft, as well as ammunition and fuel.”¹

National Defence’s supply chain aims to fulfill materiel requirements in the most economical and timely manner possible, by storing the appropriate quantity of materiel close to where it will be used. Although a portion of the materiel procured can be delivered directly to the military units, most deliveries are made to the CAF supply depots in Edmonton and Montréal.² Additionally, the “navy operates 2 other depots, located in Esquimalt and Halifax. The navy, the army, the air force, the Canadian Joint Operations Command, and the Strategic Joint Staff manage various elements of the transportation system that is used to move the materiel between locations.”³

In turn, materiel is transferred from depots to warehouses in those regions and then redistributed to smaller, local warehouses close to military units, per a designated supply chain structure. Then, at Canada’s navy, army, and air force bases, supply units manage the local warehouses and help other units on the bases get the materiel they need if it is not available at their local warehouses.⁴

National Defence established a process to manage inventory and transfer materiel between locations, as outlined in the Supply Administration Manual. The Transport

1 Office of the Auditor General of Canada (OAG), [Supplying the Canadian Armed Forces—National Defence](#), Report 3 of the 2020 Spring Reports of the Auditor General of Canada, para. 3.2.

2 Ibid., para. 3.7.

3 Ibid.

4 Ibid, paras. 3.13 to 3.17.



Manual provides more details on the transportation process. Lastly, both the supply and transportation processes are each supported by information systems.⁵

National Defence is composed of both the Department of National Defence (the department), which is headed by the Deputy Minister, and CAF, which is headed by the Chief of the Defence Staff. Both entities “are jointly responsible for managing the supply chain.”⁶ Furthermore, within the department, two groups share responsibilities for the supply chain: the equipment program management divisions are responsible for supporting the fleets of ships, vehicles, and aircraft, which decides what spare parts are needed, how many, and where the parts should be made available to ensure that the equipment can be properly maintained and repaired; and, the Materiel Systems and Supply Chain Directorate, which develops the supply policies, procedures, and business processes.⁷

In the spring of 2020, the Office of the Auditor General of Canada (OAG) released an audit that aimed to determine whether National Defence supplied CAF with the materiel they needed, when needed. It also examined whether National Defence delivered the requested materiel items in a timely manner while avoiding needless transportation costs. Lastly, the OAG examined the supply chain for selected materiel from the time of request to delivery. Selected materiel for this audit included “tools, spare parts, uniforms and specialized clothing, and rations,” whereas “ammunition, bombs, and missiles, and also stand-alone equipment such as aircraft, vessels, and vehicles” were excluded.⁸

On 19 November 2020, the House of Commons Standing Committee on Public Accounts (the Committee) held a hearing on this audit with the following in attendance:

OAG – Karen Hogan, Auditor General of Canada; Nicholas Swales, principal.

National Defence – Jody Thomas, Deputy Minister; Troy Crosby, Assistant Deputy Minister, Materiel Group; Major-General T.J. Cadieu, Director of Staff, Strategic Joint Staff.⁹

5 Ibid.

6 Ibid., para. 3.4.

7 Ibid., para. 3.5.

8 Ibid., para. 3.8.

9 House of Commons Standing Committee on Public Accounts, *Evidence*, 2nd Session, 43rd Parliament, 19 November 2020, [Meeting No. 7](#).

FINDINGS AND RECOMMENDATIONS

A. Stock Maintenance

The OAG found National Defence’s systems and processes often did not ensure the timely and efficient delivery of military supplies to CAF and that stock shortages often caused delays.¹⁰ Notably, 50% of all materiel requested during the audit period was received after the required delivery date; specifically:

- 50% were at least 15 days late; and
- 25% were at least 40 days late.¹¹

Of the high-priority requests, which were found to have been misused as an operational workaround, 60% arrived after the required delivery date; specifically:

- 50% were at least six days late; and
- 25% were at least 20 days late.¹²

National Defence also had a backlog of about 162,000 requests that were more than one year late, stalled at some stage in the process.¹³

Additionally, “National Defence did not stock the right quantities of materiel at the right locations,” which “required additional steps to procure materiel or to transfer it between locations, which slowed deliveries. Poor stock management also resulted in increased use of commercial transportation, which often costs more than other options.”¹⁴

Lastly, “National Defence did not develop performance indicators to measure whether materiel was stocked at the right warehouses, and whether warehouses held sufficient

10 OAG, [Supplying the Canadian Armed Forces—National Defence](#), Report 3 of the 2020 Spring Reports of the Auditor General of Canada, para. 3.21.

11 Ibid., para. 3.27.

12 Ibid., para. 3.28.

13 Ibid., para. 3.29.

14 Ibid., para. 3.32.



stock to fulfill the requirements of the military bases and units they were tasked with supporting.”¹⁵

Consequently, the OAG recommended that “National Defence should review its materiel forecasting and positioning to ensure that sufficient stocks are maintained at the right locations. It should also review its materiel availability measures at the warehouse and national levels and use these measures to monitor whether stock levels are met.”¹⁶

CASE STUDY

According to the OAG, the efficiency of National Defence’s supply chain relies on the following concepts:

- Materiel requirements are forecasted to meet the operational and readiness requirements of the Canadian Armed Forces and to ensure that the right materiel and quantity is in the right place at the right time.
- Materiel is positioned close to where it will be used to reduce costs and to enable rapid response in times of operational urgency.
- Minimum stock levels are set according to where materiel will be needed.
- Stocks are replenished to ensure that sufficient materiel is at the right place when required.
- Materiel is distributed according to National Defence’s established supply chain structure.

As part of this audit, the OAG examined whether National Defence applied these concepts. Specifically, for the 129 high-priority requests that were examined, the OAG found the following in terms of minimum stock levels:

- In 100 cases, the minimum stock level was set at zero for all warehouses in a requesting unit’s supply chain structure, but National Defence could not confirm whether this level was set intentionally or was the information system’s default.
- In the remaining 29 cases, the minimum stock level was set at greater than zero, but 14 cases did not comply with this level, causing stock shortages.

15 *Ibid.*, para. 3.40.

16 *Ibid.*, para. 3.43.

In terms of having materiel at the right place when needed, the OAG found the following:

- In 28 cases of the 129 cases examined, the warehouses that were normally expected to fulfill the request did not have enough stock, so the request had to be rerouted to a different warehouse.
- In six of those 28 cases, there was no stock available at any location, so National Defence had to purchase the requested materiel.

Thus, the OAG concluded that National Defence did not adequately forecast its needs for materiel to be able to position it close to where it would be needed.

Source: Office of the Auditor General of Canada, [Supplying the Canadian Armed Forces—National Defence](#), Report 3 of the 2020 Spring Reports of the Auditor General of Canada, paras. 3.33 to 3.35.

In its Departmental Response, National Defence stated its agreement with the recommendation and added that it “will address this recommendation by conducting a review of how defence materiel holdings are planned to make sure the right quantities of the right items are available for [CAF] use, and that they are stored in locations that result in an overall better service level.”¹⁷ It also committed to the following milestones:

1 July 2021 – Revised measures for materiel availability will be approved and the Departmental Results Framework will be updated to reflect the changes.

31 July 2021 – Formal Defence Supply Chain Governance monitoring of materiel availability will begin.

30 June 2022 – Results of review of materiel planning and forecasting policy, tools and processes will be presented to Governance along with an implementation plan for approval that addresses the OAG’s observations.

31 Dec 2028 – The next generation of Materiel Planning and Positioning tools will be integrated with the next generation Enterprise Resource Planning System, as part of a capital software project that is already in its early approval stages.¹⁸

17 National Defence, [Departmental Response](#), pp. 1-2.

18 Ibid.



When asked why recommendations from a 2016 OAG report – that National Defence develop supply chain performance metrics and review how stock levels for materiel were established – were not fully implemented, Jody Thomas, Deputy Minister, explained the following:

The metrics in question are under development now. In 2017, we launched a 10-year program to repair, improve and modernize the supply chain, and we are three years into that program now. Some of it has to do with developing the standards and how we will measure, and some of it has to do with modernizing the system through an IT approach to things, because we do so much that is manual and we use multiple systems right now. There's no one input that says let's develop KPIs, and it is then a problem solved.

In fact, there are multiple layers to the situation, and what needs to get done is to ensure that we are providing the performance metrics, that we have reasonable standards, that we have reasonable processes and that we have an IT system to manage it.¹⁹

Troy Crosby, Assistant Deputy Minister, Materiel Group, added the following:

[Our] focus has been on stock out rates, the occasions where there is zero stock available to respond to a demand. Over time, as we bring in new technology, we have access to the information and we could really measure our performance, we're going to turn our minds more to performance metrics focused on reliability, on responsiveness of the supply chain, on optimizing where our inventory is located and on the accuracy of our stock-taking counts. All of those together will allow us to improve our performance in responding to the demands of the Canadian Armed Forces.²⁰

With regard to the complexity of supplying CAF and National Defence's commitment to improving this situation, Jody Thomas provided the following:

We're talking about 500,000 orders per year, 460 million items. There is complexity in the amount of materiel we're talking about. There is complexity in the number of locations from which it is managed. There is complexity in ensuring we have one system, from ordering to delivery, and performance metrics rather than the multiplicity of systems we use now.

We have decided to understand the problem before we rush in, and try to fix it. There have been attempts in the past, and those attempts have only looked at one or two aspects of the complexity, the range and depth of the problem. If we're going to do this,

19 House of Commons Standing Committee on Public Accounts, *Evidence*, 2nd Session, 43rd Parliament, 19 November 2020, [Meeting No. 7](#), 11:25.

20 Ibid.

we're going to do it right. We have committed to timelines, and firm milestones on when things are going to get done, and we're happy to report back on those.²¹

And, when questioned about the long timelines presented to the Committee regarding improving the National Defence supply system, the Deputy Minister replied as follows:

I am always pushing for things to be done more quickly. It is frustrating in this department how long activities and responses, remedies, solutions to issues raised by the Auditor General or our own internal audit, and our own internal process review can take.

In this particular case, because of the complexity of the system, and the moving from essentially multiple, analogue, handwritten systems and very simplistic databases to one end-to-end solution, including the transportation aspects of it, this is reasonable.

What we do commit to is reporting back to this committee on our progress. We communicate regularly with the Auditor General on our progress. Our goal is to do it more quickly. We'd like to ensure that we do it correctly.²²

Understanding the complexity of the situation and the prime importance of efficiently providing the proper materiel to CAF, the Committee thus recommends:

Recommendation 1—on stock maintenance

That, by 30 September 2021, National Defence provide the House of Commons Standing Committee on Public Accounts with a progress report with regard to A) reviewing its materiel forecasting and positioning to ensure that sufficient stocks are maintained at the right locations; and B) reviewing its materiel availability measures at the warehouse and national levels and using these measures to monitor whether stock levels are met. A final report should be provided by 30 September 2022.

Recommendation 2—on the next generation Materiel Planning and Positioning tools and Enterprise Resource Planning System

That National Defence provide the House of Commons Standing Committee on Public Accounts with progress reports regarding the development of the next generation of Materiel Planning and Positioning tools and their integration with the next generation Enterprise Resource Planning System by the 31st of December of each of the years 2021 to 2028.

21 ibid.

22 ibid., 11:35.



B. High-priority Requests

The OAG found that “National Defence did not rigorously prioritize requests for military supplies; a large portion of high-priority requests were flagged as high priority without justification.”²³

Furthermore, every “materiel request must be assigned a priority level and required delivery date that is consistent with the priority level identified. For high-priority requests, additional information is to be provided to justify its importance for operational requirements and the required delivery date.”²⁴

For its sample of 129 high-priority materiel requests, the OAG also requested the supply forms and any relevant documentation to justify their high-priority delivery; it found that National Defence could not justify the high-priority status of 65% of the requests sampled.²⁵

Unjustified priority requests put an excessive burden on the supply chain and incur extra costs; consequently, the OAG recommended that “National Defence should improve its oversight of high-priority requests to ensure that such requests are used only when necessary.”²⁶

In its Departmental Response, National Defence stated its agreement with this recommendation and added that it “is currently conducting a holistic review in order to improve, and optimize costs, for the freight distribution services within [CAF], while maintaining operational effectiveness. This program is in the initial stage of defining the problem. Providing greater certainty to the time it takes for the Supply Chain to deliver materiel to units will reduce the need for unnecessary high priority requests.”²⁷

It also provided that the “newly proposed solution will come with performance monitoring (oversight) as a critical success factor,” as well as the following milestones:

31 Dec 2020 – Communication that reinforces the ‘high priority requests’ policy and direction.

23 OAG, [Supplying the Canadian Armed Forces—National Defence](#), Report 3 of the 2020 Spring Reports of the Auditor General of Canada, para. 3.44.

24 Ibid., para. 3.45.

25 Ibid., paras. 3.47 and 3.48.

26 Ibid., paras. 3.49 and 3.50.

27 National Defence, [Departmental Response](#), p. 2.

31 Mar 2021 – Review and data analysis completion.

31 Mar 2022 – Distribution system design completion and implementation order issued.²⁸

At the hearing, Troy Crosby provided the following regarding the prevalence of high-priority requests:

In certain cases, per the response to the Auditor General's report, where we need to introduce additional discipline into the establishment of those high-priority requests to ensure they are in fact reflective of an urgent need and that we're not diverting resources where they could be best served somewhere else, that's part of our response. That's part of what we'll be doing in the near term: ensuring that clarity exists.²⁹

Therefore, the Committee recommends:

Recommendation 3—on high-priority requests

That, by 30 April 2021, National Defence provide the House of Commons Standing Committee on Public Accounts with a progress report with regard to improving its oversight of high-priority requests. A final report should also be provided by 30 April 2022.

C. Transportation Costs

The OAG “found that for materiel movements within Canada, National Defence did not have the right controls to determine the most appropriate transportation methods to fill requests and to oversee transportation costs.”³⁰

National Defence requires that costs be considered when selecting transportation methods. To that end, the supply administration and transport manuals refer to the use of “premium transportation” when additional costs are warranted to deliver materiel on time (i.e., high priority requests).³¹ However, National Defence defined “premium

28 Ibid.

29 House of Commons Standing Committee on Public Accounts, *Evidence*, 2nd Session, 43rd Parliament, 19 November 2020, [Meeting No. 7](#), 12:35.

30 OAG, [Supplying the Canadian Armed Forces—National Defence](#), Report 3 of the 2020 Spring Reports of the Auditor General of Canada, para. 3.51.

31 Ibid., para. 3.54.



transportation” as “high-cost methods” without providing any guidance on how to assess transportation costs and what constitutes high costs.

Lastly, the information system that supports transportation activities listed the costs associated with commercial shipments but not those of operating National Defence fleets. Without clear criteria, it is difficult for staff to authorize shipment methods and to make well-informed decisions; it also prevents National Defence from reporting on transportation costs.³²

Consequently, the OAG recommended that “National Defence should communicate the costs of all available transportation methods and provide clear guidance on how to select the mode of transportation to ensure that decisions are founded on a full understanding of costs.”³³

In its Departmental Response, National Defence stated its agreement with this recommendation and reiterated its holistic review of the process, and that a “key element of this review is for the distribution system to include decision-making for end-users founded on a full understanding of costs. Once next steps are identified these will be fully communicated to the leaders and end-users in the CAF materiel distribution function, including preliminary plans for specific practitioner training.”³⁴ It also provided the following milestone (in addition to those pertaining to Recommendation 3):

15 Jan 2023 – Review of financial framework and adjustments made as required.³⁵

When questioned about this matter, Jody Thomas responded with the following:

This is part of the holistic review that is being done of the entire process to look at our end-to-end delivery. We need to be completely transparent on costs. We need to make cost-effective decisions. We need to be able to manage the inventory and the movement of goods around the country in a way that is cost-effective, and we will be publishing results of studies as they become available.³⁶

32 Ibid., para. 3.55.

33 Ibid., para. 3.57.

34 National Defence, [Departmental Response](#), pp. 3-4.

35 Ibid.

36 House of Commons Standing Committee on Public Accounts, *Evidence*, 2nd Session, 43rd Parliament, 19 November 2020, [Meeting No. 7](#), 12:40.

Hence, the Committee recommends:

Recommendation 4—on transportation costs

That, by 30 April 2021, National Defence provide the House of Commons Standing Committee on Public Accounts with a progress report with regard to communicating the costs of all available transportation methods and providing clear guidance on how to select the mode of transportation to ensure that decisions are founded on a full understanding of costs. A final report should also be provided by 31 January 2023.

CONCLUSION

The Committee concludes that National Defence often did not deliver the materiel requested by the Canadian Armed Forces on time and it did not have sufficient right controls in place to determine whether it avoided needless transportation costs.

As part of its study, the Committee has made four recommendations in this report to help National Defence improve its delivery of materiel to help ensure that CAF is properly equipped to meet its operation requirements.



APPENDIX A – SUMMARY OF RECOMMENDED ACTIONS AND ASSOCIATED DEADLINES

Table 1—Summary of Recommended Actions and Associated Deadlines

Recommendation	Recommended Action	Deadline
Recommendation 1	National Defence should provide the House of Commons Standing Committee on Public Accounts with a progress report with regard to A) reviewing its materiel forecasting and positioning to ensure that sufficient stocks are maintained at the right locations; and B) reviewing its materiel availability measures at the warehouse and national levels and using these measures to monitor whether stock levels are met. A final report should also be provided.	30 September 2021 and 30 September 2022
Recommendation 2	National Defence should provide the Committee with progress reports regarding the development of the next generation of Materiel Planning and Positioning tools and their integration with the next generation Enterprise Resource Planning System.	31 December of each of the years 2021 to 2028
Recommendation 3	National Defence should provide the Committee with a progress report with regard to improving its oversight of high-priority requests. A final report should also be provided.	30 April 2021 and 30 April 2022

<p>Recommendation 4</p>	<p>National Defence should provide the Committee with a progress report with regard to communicating the costs of all available transportation methods and providing clear guidance on how to select the mode of transportation to ensure that decisions are founded on a full understanding of costs. A final report should also be provided.</p>	<p>30 April 2021 and 31 January 2023</p>
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APPENDIX B LIST OF WITNESSES

The following table lists the witnesses who appeared before the committee at its meetings related to this report. Transcripts of all public meetings related to this report are available on the committee's [webpage for this study](#).

Organizations and Individuals	Date	Meeting
Department of National Defence	2020/11/19	07
Jody Thomas, Deputy Minister		
Troy Crosby, Assistant Deputy Minister, Materiel Group		
T. J. Cadieu, Director of Staff, Strategic Joint Staff		
Office of the Auditor General	2020/11/19	07
Karen Hogan, Auditor General of Canada		
Nicholas Swales, Principal		

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the committee requests that the government table a comprehensive response to this Report.

A copy of the relevant *Minutes of Proceedings* ([Meetings Nos. 7 and 12](#)) is tabled.

Respectfully submitted,

Kelly Block, M.P.
Chair

