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CANADA

REPORT 3, CANADA'S FIGHTER FORCE— NATIONAL DEFENCE, OF THE 2018 FALL REPORTS OF THE AUDITOR GENERAL OF CANADA

Report of the Standing Committee on Public Accounts

Honourable Kevin Sorenson, Chair



**MARCH 2019
42nd PARLIAMENT, 1st 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

SIXTIETH REPORT

Pursuant to its mandate under Standing Order 108(3)(g), the Committee has studied Report 3, Canada's Fighter Force—National Defence, of the 2018 Fall Reports of the Auditor General of Canada and has agreed to report the following:



REPORT 3, CANADA'S FIGHTER FORCE— NATIONAL DEFENCE, OF THE 2018 FALL REPORTS OF THE AUDITOR GENERAL OF CANADA

INTRODUCTION

In addition to its domestic defence and security requirements, as a participating member of the North American Aerospace Defense Command (NORAD) and the North Atlantic Treaty Organization (NATO), Canada has made international commitments to help ensure peace and stability.¹ To that end, “National Defence needs an effective fighter force, which means capable aircraft and personnel. In the spring of 2018, the Royal Canadian Air Force [RCAF] had 76 CF-18 aircraft and more than 1,450 military and civilian personnel contributing to the fighter capability.”²

According to the Office of the Auditor General of Canada (OAG), the RCAF “must have a minimum number of fighter aircraft and crew on standby to enforce Canada’s sovereignty and to respond quickly to threats against North America. It must also have aircraft available to respond to emergencies, to deploy on international operations with allies, or to be used for training.”³ When Canada procured its fleet of CF-18s in the early 1980s, they were expected to be replaced after about 20 years; modernization efforts extended their retirement date.⁴

Additionally, in 2010, although the “government announced its intention to buy 65 F-35 fighter aircraft to replace the CF-18s by 2020,” it had not finalized its plans to procure replacement fighter aircraft by 2014.⁵ Consequently, “National Defence extended the CF-18’s planned retirement date to 2025. In December 2017, the government announced

1 Office of the Auditor General of Canada (OAG), [Canada’s Fighter Force – National Defence](#), Report 3 of the 2018 Fall Reports of the Auditor General of Canada, para. 3.1.

2 Ibid.

3 Ibid., para. 3.2.

4 Ibid., para. 3.3.

5 Ibid.



that it intended to use a competitive process to buy 88 new fighter aircraft to replace the CF-18s by 2032.”⁶

In 2012, the OAG released an audit whose purpose was to examine “Canada’s participation in the Joint Strike Fighter Program and the decision process to acquire F-35 aircraft. The audit concluded that National Defence [or the Department] did not manage the process to replace the CF-18 fleet with due diligence and that Public Works and Government Services Canada (now Public Services and Procurement Canada) did not demonstrate due diligence in its role as the government’s procurement authority.”⁷

In June of 2017, the government released *STRONG, SECURE, ENGAGED: CANADA’S DEFENCE POLICY (SSE)*, which includes various investments in the RCAF, including procuring “88 advanced fighter aircraft.”⁸

In the fall of 2018, the OAG released another fighter aircraft-focused performance audit whose purpose was to determine “whether National Defence managed risks related to Canada’s fighter aircraft fleet so that it could meet Canada’s commitments to NORAD and NATO until a replacement fleet is operational.”⁹ It should be noted that the OAG “did not examine the process that the government launched in 2017 to buy the 88 replacement fighter aircraft,” nor did it follow up on its recommendation from the 2012 report.¹⁰

On 3 December 2018, the House of Commons Standing Committee on Public Accounts (the Committee) held a hearing on this audit. In attendance from the OAG were Jerome Berthelette, Assistant Auditor General, and Casey Thomas, Principal. From National Defence were Jody Thomas, Deputy Minister; Patrick Finn, Assistant Deputy Minister, Materiel; and, Lieutenant-General A. D. Meinzinger, Commander, RCAF.¹¹

6 Ibid.

7 Ibid., para. 3.4. For further reference, see [Chapter 2 – Replacing Canada’s Fighter Jets](#) of the 2012 Spring Report of the Auditor General of Canada.

8 National Defence, *Engaged: Canada’s Defence Policy (Highlights)*, p. 16.

9 OAG, [Canada’s Fighter Force – National Defence](#), Report 3 of the 2018 Fall Reports of the Auditor General of Canada, para. 3.5.

10 Ibid., para. 3.7.

11 House of Commons Standing Committee on Public Accounts, *Evidence*, 1st Session, 42nd Parliament, 3 December 2018, [Meeting No. 122](#).

FINDINGS AND RECOMMENDATIONS

A. Meeting the New Requirement for Canada's Fighter Force

1. Personnel

Prior to 2016, National Defence maintained a flexible approach to train personnel or deploy aircraft in response to changing NORAD alert levels; as a result, the number of aircraft that were prepared varied daily, and was also dependent on factors such as “operational and training requirements, the availability of spare parts, and the weather.”¹²

In 2016, “the Government of Canada directed National Defence to have enough aircraft available every day to meet the highest NORAD alert level and Canada’s NATO commitment at the same time. Although there was no timeline for meeting this new operational requirement, it was a significant change, as it came at a time when the [RCAF] was already facing low personnel levels, was managing an aging fleet, and had not yet identified a replacement fleet. The change reduced operational flexibility and would require National Defence to increase the number of available aircraft by 23%.”¹³

According to the OAG, in April 2018, 22% of technician positions in CF-18 squadrons were vacant or filled by technicians not yet fully qualified to do such maintenance; furthermore, “between December 2016 and April 2018, CF-18 technicians were able to prepare on average about 83% of the aircraft needed to meet the new requirement.”¹⁴ The departures of experienced CF-18 technicians since 2014 has led to an increase in average maintenance hours, a problem that will only worsen as the fleet ages.¹⁵ In fact, this reduction in the availability of operational aircraft also impacts pilot training.¹⁶

Additionally, fighter pilots are already leaving the fighter force faster than they can be replaced; for example, “between April 2016 and March 2018, the [RCAF] lost 40 trained fighter pilots and produced only 30 new ones. Since then, an additional 17 fighter pilots

12 OAG, [Canada's Fighter Force – National Defence](#), Report 3 of the 2018 Fall Reports of the Auditor General of Canada, paras. 3.17–3.18.

13 Ibid., para. 3.19.

14 Ibid., para. 3.20.

15 Ibid., para. 3.22.

16 Ibid., para. 3.23.



left or stated their intention to leave.”¹⁷ The OAG noted that the Department had “no plan to specifically address the serious problem of the lack of CF-18 pilots.”¹⁸

Taken altogether, the OAG found that “the shortage of trained technicians and pilots, along with the difficulties in maintaining an aging fleet, will prevent National Defence from meeting the government’s new requirement,” and it may not be able to do so for many years.¹⁹

2. Interim Aircraft

In 2016, the federal government announced plans to explore procuring 18 new Super Hornet fighter jets; however, National Defence’s own analysis showed that this alone would not meet the new operational requirement.²⁰ Following a trade dispute in 2017, the government decided not to buy the Super Hornets and eventually announced its intention to acquire and modify 18 Australian F/A-18s along with spare parts at a cost of \$471 million, plus an additional \$558 million to operate them until 2032.²¹

According to the OAG, this “purchase will not fix the fundamental weaknesses with the fleet: the aircraft’s declining combat capability and the shortage of personnel. The Australian F/A-18s will need modifications and upgrades to allow them to fly until 2032. These modifications will bring the F/A-18s to the same level as the CF-18s but will not improve the CF-18’s combat capability. In addition, National Defence still does not have enough technicians to maintain and pilots to fly the aircraft.”²²

Therefore, the OAG recommended that “National Defence should develop and implement recruitment and retention strategies for fighter force technicians and pilots that are designed to meet operational requirements and prepare for the transition to the replacement fleet.”²³

In its Detailed Management Action Plan, the Department stated that it agreed with this recommendation and committed to implementing “plans to increase the number of

17 Ibid., para. 3.24.

18 Ibid., para. 3.25.

19 Ibid., para. 3.26.

20 Ibid., para. 3.27.

21 Ibid., para. 3.30. This aircraft is highly similar to the CF-18.

22 Ibid., para. 3.31.

23 Ibid., para. 3.33.

technicians and pilots in the fighter force,” such as the “Fighter Capability Maintenance Renewal initiative, which will transfer over 200 technicians to front line squadrons; also, new Canadian Armed Forces (CAF) recruitment efforts and retention strategy/initiatives are to be implemented by Fall 2019. Likewise, the Fighter Capability Action Team has been established to lead [RCAF] efforts in production, absorption, sustainment and retention of fighter personnel. In addition, [SSE] includes an initiative to increase the fighter force by an additional 200 positions.”²⁴ The action plan also commits to achieving the “Future Fighter Initial Operational Capability by summer 2026.”²⁵

In response to questions about this matter, Jody Thomas, Deputy Minister, provided the following:

I would like to frame the answer by talking about the worldwide shortage of pilots. There is a demographic change going on, and there is a demand for pilots in the public sector, in armed forces and in the private sector around the world, and we are experiencing a shortage of pilots.

Since 2016, when this demographic change really began to take effect, we have lost more pilots than normal. There is always a normal attrition to industry and to other things, but there has been a significant change in that attrition over the last two years.²⁶

LGen A. D. Meinzinger, RCAF Commander, also explained how the Department is addressing these challenges:

Additionally, we have a strong focus on the fighter force in terms of force generation—that is, the training we provide to our pilots on a yearly basis. Through 1 Canadian Air Division headquarters in Winnipeg, we've put a premium on force generation being priority one. What that means is that any given day, the fighter force flying around this country is making maximum benefit of every single hour they're flying. We're doing perhaps fewer air shows, fewer CF-18 demos, but we're really focused on that knowledge transfer that has to happen in that cockpit or between the two pilots, perhaps, who are in that formation.²⁷

We have in our defence policy a growth of 200 positions to support the transition to the advanced fighter. Within those 200, approximately 108 are going to be apportioned to grow our technician capacity. We obviously need human beings, we need to train

24 National Defence, [Detailed Management Action Plan](#), p. 1.

25 Ibid.

26 House of Commons Standing Committee on Public Accounts, *Evidence*, 1st Session, 42nd Parliament, 3 December 2018, [Meeting No. 122](#), 1540.

27 Ibid., 1545.



additional technicians to fill those positions, but it gives you a sense of the growth we anticipate in the bench as we move to the advanced fighter.²⁸

The Commander further explained the challenges of family life, as it pertains to fighter force personnel, as well as the Department's measures to mitigate them:

Seamless Canada is a bespoke initiative under way currently, which really gets at supporting our families. As we move families from province to province, often they have to be exposed to atypical and dissimilar transitions, where they may have to get their vehicles reinspected even though they had their vehicle inspected six months previously, or spousal occupations are not accredited in provinces. There's a huge effort to try to normalize the expectations and the transition requirements from province to province, so I have a lot of hope in that.

As we look at the reasons why people leave the Canadian Armed Forces, it very much drives our thinking as to what we need to do. Certainly the feedback from those who are releasing is that it's a question of family, challenges for their family. There's a dimension of ops tempo, work-life balance, predictability of geographical location, and then typically fifth or sixth are comments about financial remuneration.

What are we doing about it? There's a number of prongs of attack. Certainly we're looking at the reserve force. Fighter pilots who have left, and who undoubtedly will continue to leave, are given a customized reserve service offer, meaning we will offer them the ability to continue to work with us on a window of two to five to 10 days per month, to encourage them to stay and continue to contribute to our mission. We will support that through temporary duty travel and the like.²⁹

Notwithstanding these commitments and mitigation measures, the Committee recommends:

Recommendation 1 – on recruitment and retention strategies for fighter force personnel

That, by 30 June 2019, *National Defence* provide the House of Commons Standing Committee on Public Accounts with a report outlining the progress made regarding recruitment and retention strategies for fighter force technicians and pilots that are designed to meet operational requirements and prepare for the transition to the replacement fleet. Additionally, that the Department provide the Committee with progress reports every year thereafter until the Future Fighter Initial Operational Capability is achieved.

28 *Ibid.*, 1715.

29 *Ibid.*

B. Upgrading CF-18 Combat Capability

1. Combat Capability

Other than some weapons upgrades in 2011, “National Defence has not significantly upgraded the CF-18 for combat since 2008. It has not done so, in part because it expected that a replacement fleet would be in place by 2020.”³⁰ As such, the CF-18’s capabilities are not up to date with most modern combat aircraft and air defence systems, a problem that will only get worse with time and “would limit Canada’s contribution to NORAD and NATO operations.”³¹

2. Extending the Life of the CF-18

In 2014, the Department concluded that extending the aircraft’s service period until 2025 had low technical and cost risks, and moderate risk to operations; however, this analysis also concluded that extending this period to 2030 would be both risky and costly.³² Hence, in light of this analysis, “and because there was no government decision about a new fleet, National Defence extended the CF-18’s retirement date to 2025.”³³

According to the OAG, “National Defence identified upgrades so that the CF-18 could continue to fly until the new 2025 retirement date. However, the Department removed upgrades to combat capability from the project because of cost concerns, a lack of implementation partners, and its expectation that a replacement fighter aircraft would be in place by 2025”;³⁴ furthermore, with the government’s current “procurement timeline, National Defence will have to extend the CF-18’s retirement date again, to 2032. This extension is required to complete the transition to the replacement fighter fleet. In 2032, the CF-18 will be about 50 years old and will have fallen an additional 15 years behind combat technology if no upgrades are made.”³⁵

Keeping Canada’s 76 CF-18s in service until 2032 will require National Defence to periodically monitor aircraft fatigue and devote more maintenance hours to each aircraft,

30 OAG, [Canada’s Fighter Force – National Defence](#), Report 3 of the 2018 Fall Reports of the Auditor General of Canada, para. 3.40.

31 Ibid., paras. 3.41–3.42.

32 Ibid., para. 3.44.

33 Ibid.

34 Ibid., para. 3.45.

35 Ibid., para. 3.46.



at a projected cost of \$1.2 billion.³⁶ This does not include combat capability upgrades; however, without them, the CF-18 will be less effective against adversaries and “will result in less important roles for the fighter force and will pose a risk to Canada’s ability to contribute to NORAD and NATO operations.”³⁷

Thus, the OAG recommended that “National Defence should analyze what upgrades are required for the CF-18 to be operationally relevant until 2032 and should seek approval for those that are appropriate and achievable.”³⁸

In its action plan, the Department stated its agreement with this recommendation and that it is “currently seeking approval on a number of upgrades to meet regulatory and interoperability requirements to continue flying the CF-18 until 2032. In addition, the [RCAF] is conducting analysis to assess necessary combat systems upgrades that could be implemented to address the growing challenges presented by evolving threats and in line with allied upgrades. This analysis, which is anticipated to be completed by Spring 2019, will take into consideration plans to transition to the Future Fighter capability in the mid-2020s.”³⁹

When questioned about these upgrades and operational capability, Jody Thomas provided the following clarifications:

The first advanced fighter will arrive in 2025 and the number of mission-ready aircraft will increase quickly to address our NORAD and NATO commitments. In fact, we expect to achieve initial operating capability by 2026 with nine advanced fighters ready to fulfill the NORAD mission.

We are committed to keeping the procurement process for the advanced fighter fleet on time and on budget. By 2032, we will have the right quantity and quality of aircraft needed for the Royal Canadian Air Force to meet our NORAD and NATO obligations for years to come.

This also means that while we will continue to fly the CF-18s until 2032, we will not be flying all of the CF-18s until 2032. We will only fly as many as we need to support the transition to the advanced fighter fleet. We recognize that there will be challenges as

36 Ibid., paras. 3.47–3.48.

37 Ibid., para. 3.49.

38 Ibid., para. 3.50.

39 National Defence, [Detailed Management Action Plan](#), p. 3.

we prepare for this transition. We are working very hard to implement the Auditor General's recommendations, which will help us mitigate these challenges.⁴⁰

We're never not analyzing the improvement to fleets. They're constantly going through refits, through weapons changes, sensor changes, defensive and offensive capability changes to respond to threat and environment, etc. Certainly the air force can go into it in more detail than I, but that project isn't yet complete. It will be this spring. Then we'll decide what we'll do.⁴¹

Therefore, the Committee recommends:

Recommendation 2 – on upgrades to the current fighter force

That, by 30 June 2019, *National Defence* provide the House of Commons Standing Committee on Public Accounts with a report outlining what progress has been made regarding 1) assessing what upgrades are required for the CF-18 to be operationally relevant until 2032 and 2) finalizing which ones, if any, will be implemented. Additionally, that the Department provide the Committee with a progress report every year thereafter until 2032.

CONCLUSION

The Committee concludes that National Defence has not done enough to manage risks related to its fighter aircraft fleet to meet commitments to NORAD and NATO until a replacement fleet is in place. However, the Committee acknowledges that some of this is due to factors outside of its control, such as the uncertainty around the procurement of a replacement fighter fleet and increased operational requirements.

To address these concerns, the Committee has made two recommendations to help the Department ensure it addresses these challenges in a timely manner.

40 House of Commons Standing Committee on Public Accounts, *Evidence*, 1st Session, 42nd Parliament, 3 December 2018, [Meeting No. 122](#), 1535.

41 *Ibid.*, 1630.



SUMMARY OF RECOMMENDED ACTIONS AND ASSOCIATED DEADLINES

Table 1—Summary of Recommended Actions and Associated Deadlines

Recommendation	Recommended Action	Deadline
Recommendation 1	<i>National Defence</i> should provide the House of Commons Standing Committee on Public Accounts with a report outlining the progress made regarding recruitment and retention strategies for fighter force technicians and pilots that are designed to meet operational requirements and prepare for the transition to the replacement fleet. Additionally, it should provide the Committee with progress reports every year thereafter until the Future Fighter Initial Operational Capability is achieved.	30 June 2019 and every year until the capability is achieved.
Recommendation 2	<i>National Defence</i> should provide the Committee with a report outlining what progress has been made regarding 1) assessing what upgrades are required for the CF-18 to be operationally relevant until 2032 and 2) finalizing which ones, if any, will be implemented. Additionally, it should provide the Committee with a progress report every year thereafter until 2032.	30 June 2019 and every year until 2032

APPENDIX A 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
Office of the Auditor General Jerome Berthelette, Assistant Auditor General Casey Thomas, Principal	2018/12/03	122
Department of National Defence Jody Thomas, Deputy Minister Patrick Finn, Assistant Deputy Minister, Materiel LGen A. D. Meinzinger, Commander Royal Canadian Air Force		

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. 122 and 130](#)) is tabled.

Respectfully submitted,

Hon. Kevin Sorenson, P.C., M.P.
Chair

