

**Response to the Standing Committee on Public Accounts'
Report 3, Canada's Fighter Force – Canadian Armed Forces, of the 2018 Fall Reports of
the Auditor General of Canada**

Recommendation 2

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, it should provide the Committee with a progress report every year thereafter until 2032.

Background

In its 2018 report on Canada's fighter force, the Auditor General recommended that National Defence analyze upgrades required for the CF-18 to be operationally relevant until 2032, and seek approval for those which are appropriate and achievable.

In its 2018 Management Action Plan, National Defence committed to implementing regulatory and interoperability upgrades, as well as combat capability upgrades, to address the Auditor General's recommendation. In its first update, National Defence noted that it was moving forward with seeking approval for these upgrades within the Hornet Extension Project, which would be completed in two concurrent phases: Phase 1 for interoperability and regulatory upgrades, to begin in summer 2019; and, Phase 2 for combat capability upgrades, for which the analysis of requirements remained ongoing.

National Defence last provided the Committee with an update in June 2021 regarding the progress in delivering new capability upgrades through Hornet Extension Project Phase 1 and 2. National Defence reported that it was ahead of schedule on the majority of the project as measured against the timelines provided in its Management Action Plan and was beginning the process of implementing a majority of the upgrades. National Defence also reported that it had completed its analysis of upgrades required for the CF-18 to be operationally relevant until 2032 and that all approvals had been obtained. National Defence committed to provide the Committee with an update on Phase 1 and 2 progress as part of its annual update in June 2022. Please find this update below.

Progress made since June 2021 in assessing and selecting CF-18 upgrades

The Hornet Extension Project continues to progress, with National Defence having completed its analysis of upgrades required for the CF-18 to be operationally relevant until 2032, and having obtained all required approvals for the project, thereby meeting the recommendation of the Auditor General.

In particular, on 9 December 2021, National Defence received amended project approval, expenditure authority, and contracting authority from Treasury Board to fully implement all aspects of the project. The project remains on schedule to deliver the full operational capability by June 2025, within its approved fixed budget of \$1.3 billion.

Phase 1: regulatory and interoperability upgrades

As part of Phase 1, National Defence remains on track to deliver enhancements for up to 94 aircraft by June 2025. These enhancements are mainly focused on addressing evolving civilian air traffic management regulations and meeting Allied military interoperability requirements. For example, these enhancements include upgrades to transponders, navigation systems, simulators, mission computers, satellite radios, helmets, cryptographic systems, and electro-optical and infrared sensors.

Since the last update to the Committee, National Defence, through Public Services and Procurement Canada, awarded two commercial contracts to: 1) provide enhancements to the electro-optical / infrared sensor to aid in interoperability and pilot awareness; and, 2) provide a nighttime cueing capability that is compatible with the current helmet. A third commercial contract is anticipated to be awarded shortly, which will provide for a replacement of the aircraft's global positioning navigation system to meet new civil air regulation requirements.

National Defence has also taken delivery of and begun integration activities for new radios that will provide the latest cryptographic capability to ensure interoperability, as well as a satellite communications (SATCOM) capability necessary for northern operations. Initial flight testing of the radios is scheduled to start in August 2022.

All Phase 1 elements remain on track for delivery and implementation by 2025, and will help sustain National Defence's current CF-18 fleet until 2032, when the replacement fighter aircraft becomes fully operational.

Phase 2: combat capability upgrades

All Phase 2 elements have now entered the Implementation Phase, well ahead of the commitment to be in Definition Phase no later than 2022. For example, solutions for the last Phase 2 items in Definition Phase, security systems and aircraft computer upgrades, entered Implementation Phase in December 2021. These elements will ensure adequate level of security and aircraft computing power for operation of Phase 2 systems.

As part of Phase 2, National Defence continues to focus on enhancing the combat capability for 36 of its CF-18s. Key combat capability enhancements include a new active electronically scanned array radar and advanced weapons and sensors, to enable the CF-18 to achieve operational parity against Canada's adversaries. For example, the first of six planned Phase 2 aircraft software builds, developed in coordination with the United States Navy and United States Marine Corps, was successfully flight tested in March 2022. The remaining five software builds will progressively incorporate capabilities that will be flight tested from August 2022 to September 2024, leading to a full capability by June 2025.

Since the last update to the Committee, National Defence has also established a Project Detachment at United States Naval Air Weapons Station China Lake to support the Phase 2 Test and Evaluation Program. Security site surveys were completed at all domestic CF-18 operating locations to identify the necessary physical security infrastructure upgrades to support the new combat capability being implemented under Phase 2. Following the security site surveys, National Defence, through Public Services and Procurement Canada, awarded a commercial contract for the purchase of 15 classified non-permanent facilities.

National Defence remains on track to implement all Phase 2 combat capability upgrades by

2025, which will ensure that sufficient, operationally relevant, mission-ready CF-18 fighters are available to meet air power capability requirements in the current battle space until the future fighter fleet reaches full operational capability.

Future updates to the Committee

National Defence will provide an update to the Committee by 30 June 2023, outlining the progress made on implementing Phase 1 and 2 upgrades.