Reports of the Auditor General of Canada
to the Parliament of Canada

Report 2

Delivering Canada's Future Fighter Jet Capability

Independent Auditor's Report | 2025

Office of the Auditor General of Canada

Bureau du vérificateur général du Canada

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- gather the evidence necessary to assess performance against the criteria
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- conclude against the established audit objectives
- make recommendations for improvement when there are significant differences between criteria and assessed performance

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At a Glance

Overall message

As part of the Future Fighter Capability Project, the federal government finalized an arrangement in December 2022 to buy 88 F-35A fighter aircraft from the United States to replace Canada's aging CF-18 Hornet fleet. The project's prime objective is to maintain a strong fighter-jet capability through and after the transition to bolster Canada's ability to defend itself and fulfill its international defence commitments.

Though still in its early stages, we found that overall cost estimates for the Future Fighter Capability Project have increased significantly since the government finalized the arrangement. In 2022, National Defence projected that the costs would be $19.0 billion. By 2024, issues like foreign exchange fluctuations and rising facilities costs increased the estimate to $27.7 billion, almost 50% more than originally anticipated. That projection does not include other elements needed for Full Operational Capability, such as essential infrastructure upgrades and advanced weapons. These would add at least $5.5 billion to the total cost.

We also found that the Future Fighter Capability Project was facing delays in building key infrastructure to support the aircraft, which National Defence refers to as CF-35As. Construction of 2 new fighter squadron facilities to support operations was expected to be completed only in 2031, more than 3 years behind schedule. Costs to develop an interim operations solution to support the new jets will further increase infrastructure expenses.

The project is facing other significant risks that could jeopardize the timely introduction of the CF-35A jets. In 2018, when we last audited Canada's fighter force, we found that one of National Defence's biggest obstacles was a shortage of qualified pilots. Six years later, that was still the case. In addition, we found National Defence had not fully developed its plans to coordinate and manage this large, multi-party project, and its progress in implementing those plans was slow.

Key facts and findings

- The CF-35A arrangement includes the acquisition of aircraft and associated equipment, weapons, infrastructure, information technology, training, and software support, with Full Operational Capability targeted for 2033–34. New fighter squadron facilities are being built in Cold Lake, Alberta, and Bagotville, Quebec.
- Before the announcement to acquire the jets, National Defence spent about $1 billion to participate as a partner in the 8-nation Joint Strike Fighter program, which includes the United States, Canada, Australia, Denmark, Italy, the Netherlands, Norway, and the United Kingdom. The Joint Strike Fighter Production, Sustainment and Follow-on Development Memorandum of Understanding is a framework arrangement among the 8 nations that sets how they will collaborate and potentially acquire the F-35.
- As of 31 March 2025, National Defence had committed $935 million to the United States government to produce the first 4 jets and the delivery of long-lead items necessary to enable the future production for another 8 aircraft, of which $197 million had already been paid. In addition, National Defence had spent a further $516 million on the project including $270 million for infrastructure design and site preparation.
- The Joint Strike Fighter Program Office had conducted initial readiness assessments of Canada's plans, such as facilities design reviews. The assessments discovered significant issues including insufficient departmental engineering personnel to service support equipment for both the CF-18 Hornet and CF-35A during the transition.
- National Defence's approach to managing risks related to the Future Fighter Capability Project had weaknesses, lacking proactive measures to minimize the impact of potential threats, and the project did not have robust contingency plans.

See **Recommendations and Responses** at the end of this report.

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Introduction

Background

Canada’s fighter aircraft fleet

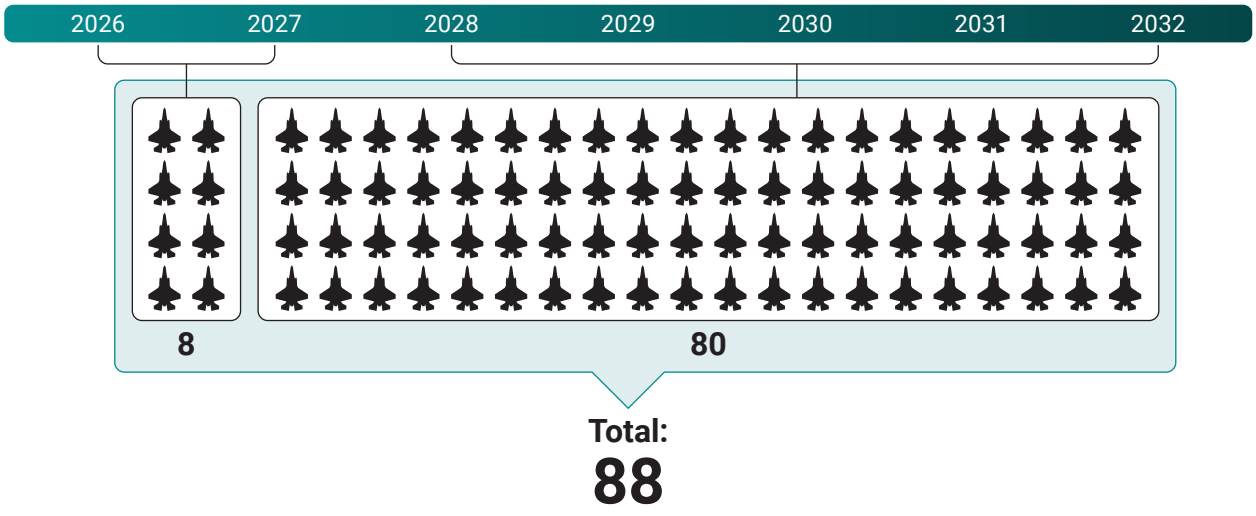
2.1 In the 2017 Strong, Secure, Engaged: Canada’s Defence Policy, and reinforced in Canada’s 2024 defence policy update, Our North, Strong and Free: A Renewed Vision for Canada’s Defence, the federal government committed to the procurement of 88 new advanced fighter aircraft. This commitment was to have “a fighter fleet that is capable, upgradeable, resilient and interoperable with our allies and partners to ensure Canada continues to meet its NORAD [North American Aerospace Defense Command] and NATO [North Atlantic Treaty Organization] commitments in the future.”

2.2 To meet this commitment, in December 2022, the Government of Canada finalized an arrangement with the United States government for the acquisition of F-35A fighter aircraft for the Royal Canadian Air Force. There are 3 models of F-35. Canada is buying the A model for operating on conventional airfields, which Canada is referring to as the CF-35A.

2.3 The Future Fighter Capability Project (with an initial estimated cost of $19 billion) is managed by National Defence. The project plans to acquire 88 fighter aircraft and associated equipment, weapons, infrastructure, information technology, training, and software support.

2.4 Delivery of the fighter jets is planned to occur between 2026 and 2032. The first 8 CF-35As are planned to be sent to Luke Air Force Base in Arizona, United States, where initial pilot training will start. All subsequent aircraft would be sent to Canada, starting in 2028 (Exhibit 2.1).

Exhibit 2.1—Planned CF-35A fighter aircraft delivery schedule



Note: In 2026 and 2027, the fighter aircraft are to be sent to Luke Air Force Base in Arizona. In 2028 to 2032, they are to be sent to Canada.
Source: Based on information from National Defence

Read the Exhibit 2.1 text description

F-35 Joint Strike Fighter program

2.5 The F-35 Joint Strike Fighter program involves the development, production, and ongoing support of a stealthy, multi-role fighter aircraft. Canada is 1 of 8 partner countries in the program, along with the United States, Australia, Denmark, Italy, the Netherlands, Norway, and the United Kingdom. Canada is the last partner to commit to acquiring the F-35 fighter jet. The Joint Strike Fighter program's Production, Sustainment and Follow-on Development Memorandum of Understanding is a framework arrangement among the partners that sets how they will collaborate and potentially acquire the F-35. Before the decision and the announcement to acquire the F-35, National Defence spent about $1 billion for participating as a partner in the F-35 Joint Strike Fighter program between 1997 and 2023.

2.6 The Joint Strike Fighter program is led by the United States Department of Defense Joint Strike Fighter Program Executive Officer, who manages the program in cooperation with the partners and promotes international cooperation in the Joint Strike Fighter Program Office. All the partner countries have representatives at the office, which is responsible for aircraft acquisition, including managing the cost, schedule, performance requirements, and technical aspects of the program. The program was expected to deliver over 3,000 aircraft to the partner countries, with the United States expected to acquire around 80% of that total. The first F-35 was delivered to the United States Air Force in July 2011.

2.7 Before the arrival of the first aircraft in Canada, a sequence of activities is required to support the successful introduction into service of the CF-35A. Prior to aircraft delivery, the Joint Strike Fighter Program Office confirms that the requirements associated with the delivery and operation of the aircraft have been met. Through various assessments, such as facilities design reviews conducted by the Office prior to aircraft delivery, gaps may be identified, and plans should be developed and implemented by National Defence to address these gaps.

Roles and responsibilities

2.8 **National Defence.** The organization is made up of the Canadian Armed Forces (which includes the Royal Canadian Air Force) and the Department of National Defence. It is responsible for meeting Canada’s NORAD and NATO operational commitments. National Defence manages the implementation of equipment, infrastructure, and services for the Future Fighter Capability Project and ongoing support of its aircraft. With respect to Canada’s future fighter jets, National Defence is also responsible for improving the Canadian Armed Forces’ air control and air attack capability.

2.9 **Defence Construction Canada.** The Crown corporation procures and manages defence infrastructure contracts. Its principal mandate is to meet the infrastructure, real property, and environmental needs of the Department of National Defence and the Canadian Armed Forces by acting as the primary contracting authority for National Defence infrastructure. Defence Construction Canada manages contracts and provides other value-added real property services and deliverables. It contracts for design, development, and construction of the Future Fighter Capability Project-related infrastructure.

2.10 **Public Services and Procurement Canada.** The department is the contracting authority for the fighter aircraft acquisition and leads the procurement processes to support the project. The department is also responsible for weapon acquisitions through Foreign Military Sales program agreements with the United States government or directly from sellers.

Focus of the audit

2.11 This audit focused on whether National Defence developed plans to introduce the CF-35A fighter aircraft into service and achieved progress on these plans so that fighter capability would be delivered on time and on budget to meet the government’s operational commitments to NORAD and NATO and to asserting Canadian sovereignty.

2.12 This audit is important because the Canadian fighter aircraft fleet's most important role is the defence of Canadian and North American airspace, and the current fleet of CF-18 Hornets is reaching the end of its service life. As the primary Canadian aircraft assigned to NORAD, Canada's fighter aircraft are on continuous alert to respond to potential aerial threats to the safety of North America.

2.13 More details about the audit objective, scope, approach, and criteria are in **About the Audit** at the end of this report.

Findings and Recommendations

Delays and significant risks could jeopardize the timely introduction of the CF-35A into service

Why this finding matters

2.14 This finding matters because Canada's current fighter aircraft fleet is reaching the end of its service life and must be replaced in a timely manner to meet operational commitments such as the defence of Canada and North America. Because the Future Fighter Capability Project is large, spanning several years and involving various parties, effective planning and good risk management practices are fundamental to achieving success, avoiding gaps in fighter capability, and managing costs.

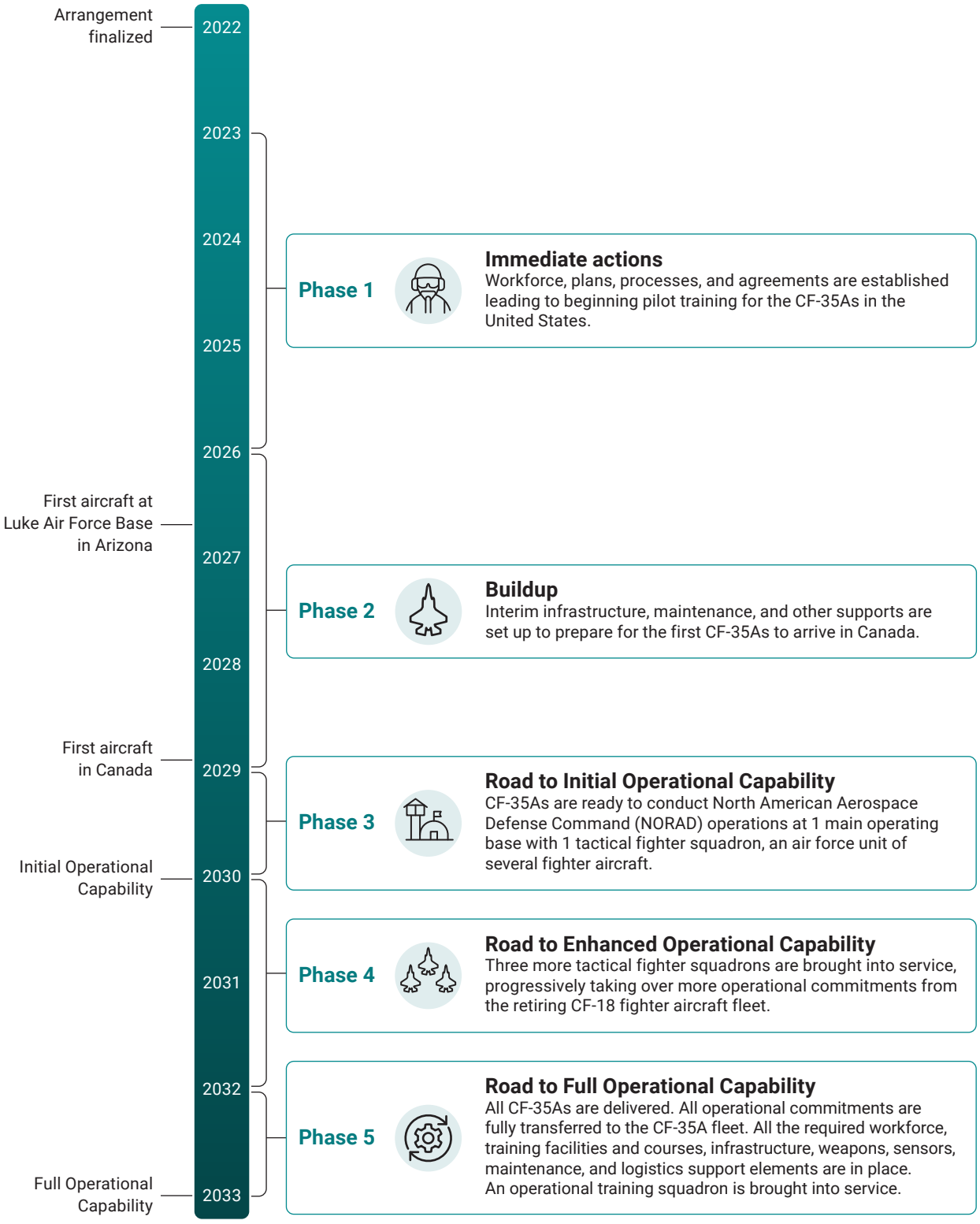
Context

2.15 The Future Fighter Capability Project is divided into 5 implementation phases with distinct milestones (Exhibit 2.2) to introduce the CF-35A into Canadian service.

2.16 The CF-35A will replace the CF-18 Hornet aircraft currently in service. The CF-18 fleet will be gradually withdrawn from service between 2025 and 2032.

2.17 The Royal Canadian Air Force operates fighter aircraft at 2 main operating bases: Cold Lake, Alberta, and Bagotville, Quebec. It also has supporting operations at other locations (Exhibit 2.3).

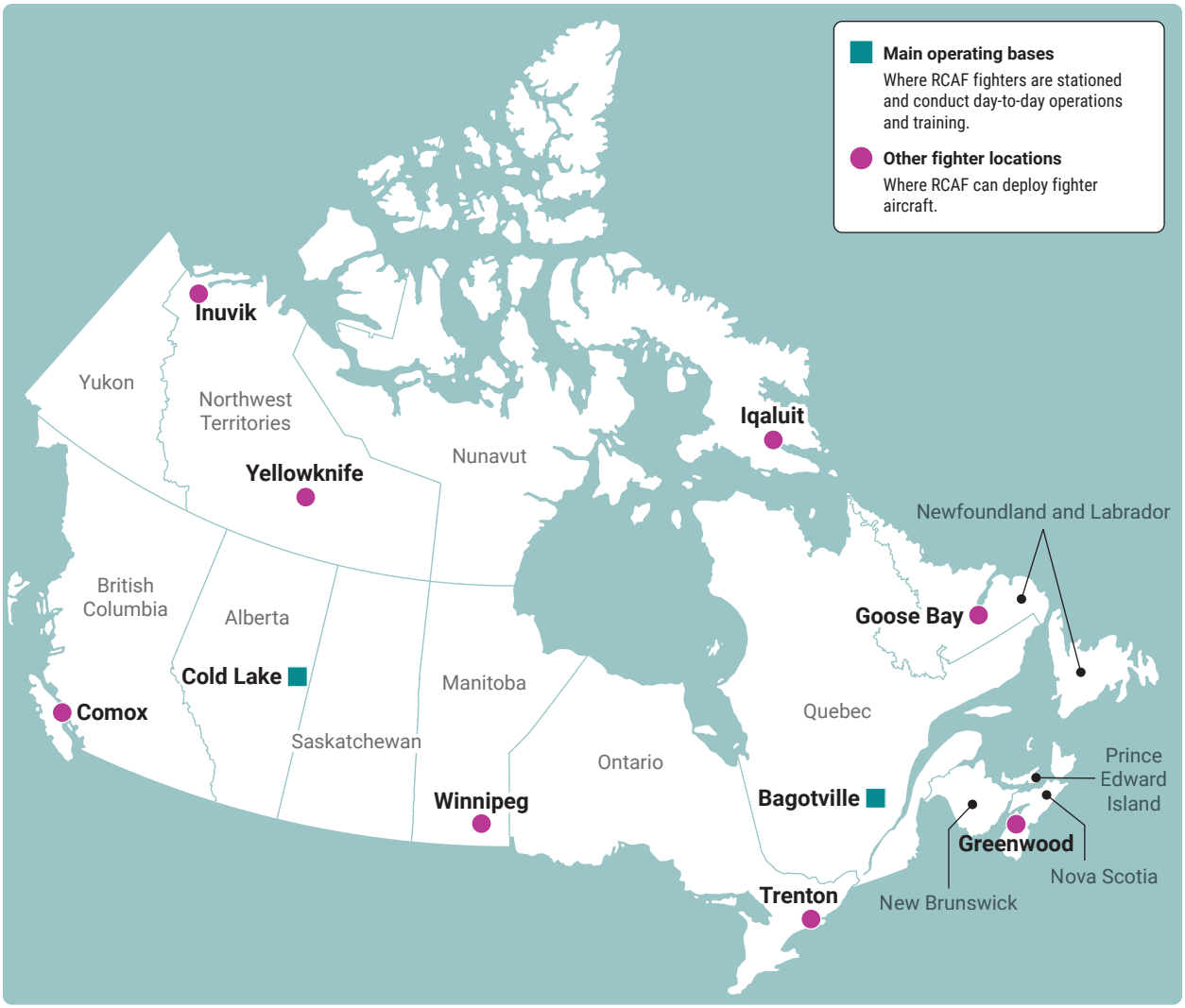
Exhibit 2.2—Future Fighter Capability Project implementation timeline



Source: Based on information from National Defence

Read the Exhibit 2.2 text description

Exhibit 2.3—Air force fighter bases across Canada



RCAF: Royal Canadian Air Force

Source: Based on information from National Defence

Read the Exhibit 2.3 text description

2.18 The Future Fighter Capability Project includes the construction of 2 fighter squadron facilities, 1 in Cold Lake and 1 in Bagotville. The need for these new facilities was driven primarily by the security requirements of the new fighter aircraft. For example, the facility designs incorporate significant protection for classified and sensitive information.

Delays in construction of fighter squadron facilities

Findings

2.19 We found that construction of the fighter squadron facilities in Cold Lake and Bagotville was more than 3 years behind the original schedule. The original plan was for these facilities to be ready when the first aircraft arrived in Canada in 2028. At the time of the audit, the planned date for completion of the facilities was 2031 because the department determined that it would have to redo important elements of the design of the 2 facilities following the selection of the aircraft and identification of additional requirements by National Defence and the Joint Strike Fighter Program Office.

2.20 The department started to develop the fighter squadron facilities design in 2020. Since the competition to select the aircraft was still underway at that time, the intent was to design a facility that could accommodate any of the 3 contender aircraft being considered. This approach was taken because National Defence expected it to take longer to design and build facilities than to take delivery of the aircraft. However, once the CF-35A was chosen in December 2022, National Defence received more detailed requirements for the facilities and the design had to be substantially modified because it did not meet the requirements of the aircraft.

2.21 As a result, when the Joint Strike Fighter Program Office assessed the progress of the facilities' design in November 2023, design maturity was assessed at 10% for Cold Lake and 15% for Bagotville. To stay on the original schedule, design maturity should have been closer to 35%, the Joint Strike Fighter Program Office's usual target for this assessment. However, because of the need to redo the design, National Defence did not expect to meet this first milestone. A repeat assessment was therefore performed in December 2024 for Cold Lake and in January 2025 for Bagotville. The design maturity met the 35% target for both locations, which meant that facilities were on track for completion in 2031.

2.22 Given that facilities were more than 3 years behind schedule, National Defence developed an interim operations plan to be able to operate and maintain in service the CF-35A fleet from the first aircraft arrival in Canada at the end of 2028 until the permanent infrastructure would be ready to operate in Cold Lake. The plan involved acquiring movable facilities combined with renovations of existing facilities on the base. We found that this initiative was still in its early stages and the detailed planning and scheduling were not finalized yet. The need for an interim facility will increase the total planned cost of infrastructure for the Future Fighter Capability Project; however, an estimate was not yet available at the time of the audit.

2.23 In June 2024, the Joint Strike Fighter Program Office conducted an assessment of the interim operations plan to determine how ready National Defence was to support the first aircraft arrival in Cold Lake in December 2028. The overall rating for this assessment was "RED," meaning that significant issues remained unresolved and required senior leadership action, including the following:

- The lack of a confirmed plan to keep pilots' knowledge and skills up to date until the full training facility was available for continuous training.
- Insufficient capacity to maintain support equipment. The departmental engineering personnel informed the Joint Strike Fighter Program Office that they could not support both CF-18 and CF-35A operations.

2.24 National Defence had developed action plans to address the issues identified during the assessment of the interim operations plan and was monitoring progress. For example, the purchase of 2 Deployable Mission Rehearsal Trainers was approved in July 2024 for pilot training facilities. At the time of the audit, it was too early to determine whether the planned actions would resolve the issues identified before the first aircraft arrival in Canada in 2028.

Significant risk of a pilot shortage

Findings

2.25 We found that there was a significant risk that the CF-18 to CF-35A transition would be hindered by a shortage of qualified pilots. In our 2018 audit report, Report 3—Canada's Fighter Force—National Defence, we found that National Defence's biggest obstacle to meeting operational requirements for CF-18s was a shortage of pilots. The shortage still existed during this audit. To make the CF-35A fleet fully operational, the Royal Canadian Air Force will need more trained pilots.

2.26 Pilot training for the CF-35A would consist of converting current CF-18 pilots as well as training new pilots on the CF-35A. Based on National Defence's predictions at the time of the audit, the planned pilot training program would not produce enough pilots by 2032–33 to meet the numbers required for Full Operational Capability. The department had yet to adjust the plan because it was examining options to address this issue.

2.27 National Defence faced a similar problem with trained technicians to maintain the CF-35A aircraft. At the time of the audit, there was a shortage of fighter aircraft maintenance technicians. However, the department's training plan predicted that it would fill the gap by 2033–34.

2.28 Our recommendation for this section is at paragraph 2.37.

Weaknesses in risk management practices

Findings

2.29 We found that National Defence's approach to managing risks related to the Future Fighter Capability Project was reactive. This meant that the department developed mitigation plans to minimize the impact of risks as they occurred, rather than taking proactive measures in advance to prevent potential threats from happening or having contingency plans in place.

2.30 The department had a risk register listing 24 identified and assessed risks at the time of the audit; however, not all of them had been approved by the project's officials and therefore they were not consistently monitored and lacked planned mitigations. For example, we looked at the risks related to schedule and cost. At the time of the audit, we found that 6 risks had not been approved by the project's officials and lacked mitigation plans. Two of those risks that related to cost were of fluctuations in foreign exchange rates and rising inflation. Although the risk register stated that these risks were unlikely to occur, the department was supposed to closely monitor inflation and foreign currency exchange rates because of the potential impact but did not always do so (as described in paragraph 2.41).

2.31 We also found that, for the approved risks, mitigation plans to prevent or respond to the risks were not robust and were framed as statements of intention rather than specific actions that could be monitored. The mitigation plans did not contain timelines or costs to implement them. We found that some of the risks had materialized; for example, the required infrastructure was not ready on time to meet project milestones. A contingency option to operate from temporary facilities was identified prior to the risk being realized but contained no proposed actions nor a cost estimate. Developing the interim operations plan after the risk was realized placed additional pressure on the project team, risking timely completion of final infrastructure.

Recommendation

2.32 National Defence should finalize its identification and assessment of risks that the Future Fighter Capability Project could face, develop clear and specific risk mitigations, and measure the effectiveness of mitigation actions.

The department's response. Agreed.

See **Recommendations and Responses** at the end of this report for detailed responses.

Incomplete plans and progress against them was slow

Findings

2.33 We found that project plans to bring the CF-35A into service were not yet fully developed or implemented and progress against aspects of existing plans was slow. Given the large scope of the Future Fighter Capability Project, National Defence implemented different plans to guide the multiple components of the project with the goal to be better coordinated and managed (Exhibit 2.4). In addition, new plans were developed to respond to the emerging challenges that the project faced (Exhibit 2.4. Findings are presented in other sections of the report).

2.34 We also found that National Defence was developing an integrated master schedule for the CF-18 to CF-35A transition. This working tool would identify project interdependencies across the numerous plans that support the Master Implementation Plan and would eventually be used to track project performance and results. At the time of the audit, the integrated master schedule was not yet completed and lacked sufficient detail to provide an integrated overview of the project. The limited planning details therefore represented a risk that actions would not be undertaken in a timely and coordinated manner.

2.35 One of the purposes of the Master Implementation Plan is to align National Defence's project implementation with the major assessment milestones required by the Joint Strike Fighter Program Office. We found that the assessments required at the time of the audit had taken place and, in some cases, such as the assessments mentioned in paragraphs 2.21 and 2.23, the reviews showed a need to close important gaps. If the gaps are not resolved by National Defence in a timely manner, this could delay bringing the aircraft into service.

Exhibit 2.4—Project plans for the Future Fighter Capability Project were not yet fully developed or implemented as of 30 September 2024

Type of plan	Purpose	What we found
Master Implementation Plan	Evergreen key document that outlines how the transition from the CF-18 to the CF-35A would occur. Provides a general overview of the 5 phases of implementation.	Details were added as each implementation phase approached. However, the level of detail for the elements in phase 1, Immediate actions, varied considerably. Some areas, such as intelligence, were explained in detail, but other areas, such as workforce planning, were incomplete.

Type of plan	Purpose	What we found
Supporting plans	Detailed plans that cover project components such as • infrastructure • operations • workforce • training • aircraft maintenance • weapons acquisition	Most of these plans were in place but not yet fully completed.
Interim Operations Plan	Plan to operate and maintain in service the CF-35A fleet from the first aircraft arrival in Canada at the end of 2028 until the permanent infrastructure is ready to operate in Cold Lake.	This initiative was still in early stages. An assessment identified that significant issues remained unresolved and required senior leadership action. Paragraphs 2.22 and 2.23
Action plans	To address the issues identified during the Joint Strike Fighter Program Office's assessment of the interim operations plan.	It was too early to determine whether the planned actions would resolve the issues identified. Paragraph 2.24
Mitigation plans	To prevent or respond to overall project risks.	For the approved risks, mitigation plans to prevent or respond to the risks were not robust and were framed as statements of intention rather than specific actions that could be monitored. Paragraph 2.31

Source: Based on our analysis of information from National Defence

2.36 We also found that the progress against aspects of the Master Implementation Plan was slow. For example, staffing was behind schedule. According to the plan, 47 out of an eventual total of 246 permanent positions for mission planning, logistics, and security were supposed to be staffed by 1 September 2024, but only 14 (30%) had been filled. Also, spending on infrastructure for the Future Fighter Capability Project in the 2023–24 fiscal year was 50% less than what had been forecasted due to delays in finalizing designs of the fighter squadron facilities.

Recommendation

2.37 National Defence should take immediate action to complete all plans and schedules for the project to bring the CF-35A aircraft into service and implement them in a timely manner.

The department's response. Agreed.

See **Recommendations and Responses** at the end of this report for detailed responses.

The Future Fighter Capability Project's cost estimates had increased significantly since 2022, yet they did not include all needed elements

Why this finding matters

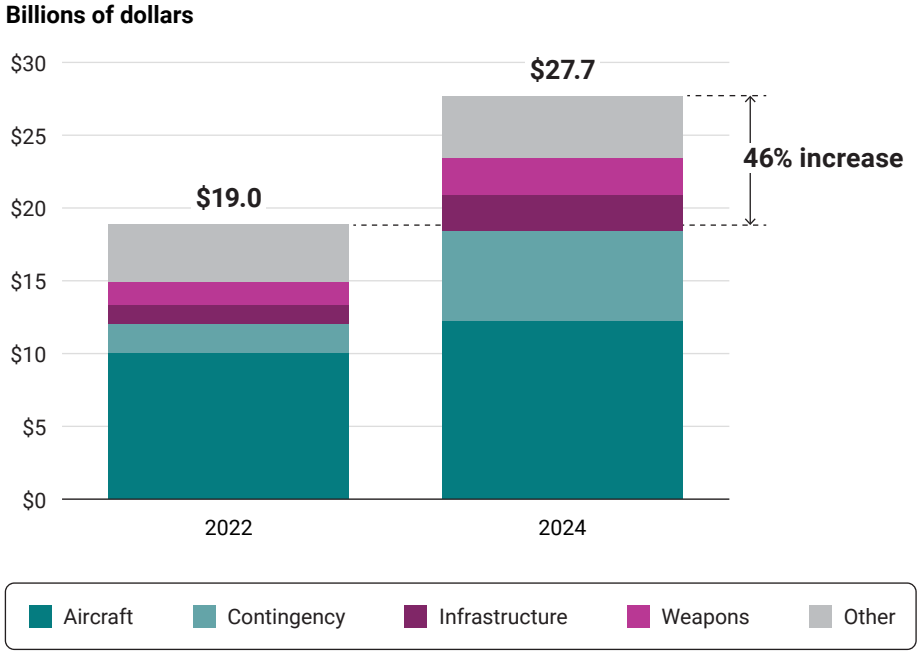
2.38 This finding matters because National Defence and parliamentarians need complete and accurate information to make well-informed decisions. Major National Defence acquisition projects need to be well defined and managed because they cost billions of dollars.

Significant increase of the estimated acquisition costs

Findings

2.39 We found that the Future Fighter Capability Project cost estimates increased by 46%, or $8.7 billion, between 2022 and 2024 (Exhibit 2.5). In January 2023, the government announced that the acquisition cost was estimated at $19.0 billion, based on a 2022 costing exercise. We reviewed National Defence's most recent updated estimates showing that the cost was now expected to be $27.7 billion.

Exhibit 2.5—The Future Fighter Capability Project cost estimates increased by 46% from 2022 to 2024



Note: The dollar figures were rounded.

Source: Based on data from National Defence

Read the Exhibit 2.5 text description

2.40 We found that National Defence's 2022 estimates were based on outdated data at the time. Information used in those estimates had been gathered during the competitive process for acquiring the CF-35A dating back to 2019. However, we found that the department was not using the annual 2022 estimates produced by the Joint Strike Fighter Program Office that were more up to date than 2019, which were showing that costs of the aircraft had already increased substantially. We also found that National Defence was only 50% confident in its 2022 estimate, meaning that it expected the eventual cost was as likely to be greater than the estimate as within it.

2.41 National Defence's project risk assessment noted that to address the risk of acquisition and maintenance costs exceeding the budget, the project team would monitor inflation and foreign currency exchange rates so as to factor any impact into decision making. We found that the department revised the Future Fighter Capability Project cost estimates in May 2024. In our view, given the low confidence in the estimate and the availability of updated information, the department should have made revisions sooner.

2.42 We found that an important part of the increase in the department's updated cost estimates of $27.7 billion was caused by global factors, specifically:

- rising inflation
- fluctuations in foreign exchange rates
- heightened global demand for munitions

2.43 Within the Future Fighter Capability Project itself, unforeseen infrastructure complexities in meeting CF-35A specifications, and aircraft cost growth also significantly impacted cost estimates.

2.44 As of 31 March 2025, the department had committed $935 million to the United States government for the production of the first 4 CF-35A aircraft and the delivery of long-lead items necessary to enable the future production for another 8 aircraft, of which $197 million had already been paid to the United States government.

2.45 In addition, National Defence had spent about $516 million on the project. This included

- $270 million for Canadian infrastructure design and site preparation
- $85 million for the project management office in National Defence
- $161 million for participating as a partner in the F-35 Joint Strike Fighter program

Recommendation

2.46 National Defence should review on at least an annual basis the Future Fighter Capability Project cost estimates and adjust them as needed to have timely and accurate information for decision making.

The department's response. Agreed.

See **Recommendations and Responses** at the end of this report for detailed responses.

Additional elements needed to bring the CF-35A into service

Findings

2.47 We found that the scope of the Future Fighter Capability Project, as it was originally defined, was not sufficient on its own to make the CF-35A fleet fully operational because there were needed elements that were not in the project's scope. As a result, the cost to achieve Full Operational Capability will be at least $5.5 billion greater than National Defence's 2024 estimated cost of $27.7 billion for the Future Fighter Capability Project.

2.48 As part of the Future Fighter Capability Project, National Defence conducted assessments and analysis between 2018 and 2022 to define the scope of the infrastructure needed to support a future fighter capability across Canada. While the project included plans to build 2 fighter squadron facilities at the 2 main operating bases at Cold Lake and Bagotville, the assessments and analysis revealed that much more infrastructure was required than originally thought or budgeted for under the Future Fighter Capability Project. The department therefore created another project, the Defence of Canada Fighter Infrastructure Project in 2022, with an estimated cost of $7 billion. This project was initiated as part of the broader NORAD modernization initiative.

2.49 Of the 33 elements included in the Defence of Canada Fighter Infrastructure Project, 20 (with an initial estimated cost of more than $4 billion) were needed for the CF-35A to be brought into service at the main operating bases at Bagotville and Cold Lake. These included

- power grid modernization
- information management and information technology upgrades
- hangarettes (aircraft storage)
- parts and weapons storage facilities

Some of the other 13 elements would extend the capability of the aircraft to operate more effectively throughout Canada, such as other locations in the North (Exhibit 2.3).

2.50 We also found that not all the required weapons would be purchased through the Future Fighter Capability Project. While National Defence was responsible for defining the type and quantities of weapons needed for the CF-35A, under the project, it was planning to acquire only some of the weapons needed to reach Full Operational Capability in 2033–34. Missiles estimated to cost an additional $1.5 billion were also needed to make the CF-35A fully operational over the same time frame. These were to be acquired through other advanced air weapons projects. However, we noted that some of these missiles could be used by the CF-18s during the transition.

Recommendation

2.51 When reporting publicly on the estimated cost of bringing the CF-35A aircraft into service, National Defence should include all needed elements required for achieving Full Operational Capability.

The department's response. Agreed.

See **Recommendations and Responses** at the end of this report for detailed responses.

Conclusion

2.52 We concluded that National Defence had not yet developed all plans for the introduction of the CF-35A fighter aircraft into service. Progress against some aspects of the plans was slow, and estimated costs had significantly increased. As a result, there were important risks that the fighter capability project will not be delivered on time and on budget and meet the government’s operational commitments.

About the Audit

This independent assurance report was prepared by the Office of the Auditor General of Canada on the preparations and progress to introduce the CF-35A fighter aircraft into service. Our responsibility was to provide objective information, advice, and assurance to assist Parliament in its scrutiny of the government's management of resources and programs and to conclude on whether National Defence's Future Fighter Capability Project complied in all significant respects with the applicable criteria.

All work in this audit was performed to a reasonable level of assurance in accordance with the Canadian Standard on Assurance Engagements (CSAE) 3001—Direct Engagements, set out by the Chartered Professional Accountants of Canada (CPA Canada) in the CPA Canada Handbook—Assurance.

The Office of the Auditor General of Canada applies the Canadian Standard on Quality Management 1—Quality Management for Firms That Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements. This standard requires our office to design, implement, and operate a system of quality management, including policies or procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

In conducting the audit work, we complied with the independence and other ethical requirements of the relevant rules of professional conduct applicable to the practice of public accounting in Canada, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behaviour.

In accordance with our regular audit process, we obtained the following from entity management:

- confirmation of management's responsibility for the subject under audit
- acknowledgement of the suitability of the criteria used in the audit
- confirmation that all known information that has been requested, or that could affect the findings or audit conclusion, has been provided
- confirmation that the audit report is factually accurate

Audit objective

The objective of this audit was to determine whether National Defence developed plans for the introduction of the CF-35A fighter aircraft into service and achieved progress against them so that fighter capability would be delivered on time and on budget to meet the government's operational commitments to the North American Aerospace Defense Command (NORAD) and the North Atlantic Treaty Organization (NATO), and to assert Canadian sovereignty.

Scope and approach

The audit focused on National Defence's Future Fighter Capability Project. We examined the planning done by National Defence in order to prepare for the introduction of the fighter jet into service. Specifically, the adequacy of plans for the transition from the CF-18 to the CF-35A, and for establishing the necessary infrastructure, workforce, training, and maintenance activities. This included determining whether plans contained clear deliverables, timelines, and resource allocation.

We examined whether the Future Fighter Capability Project was meeting its implementation goals to date. This included assessing the level of progress made in the implementation of the plans. We also focused on determining whether risks to bringing the aircraft into service on time and on budget were being managed based on good practices.

Evidence was obtained primarily through analysis of documents and financial data collected from National Defence.

Although we have no findings about them, we collected evidence from Defence Construction Canada and Public Services and Procurement Canada. We examined pertinent Cabinet and Treasury Board documents that we obtained directly from the Privy Council Office and the Treasury Board of Canada Secretariat, respectively. Our audit examination work included interviews with departmental officials and the Parliamentary Budget Officer, and site visits to the fighter base at Cold Lake and to the Joint Strike Fighter Program Office in Washington, DC.

We did not examine the strategy or process leading to arrangements to acquire the CF-35A aircraft. The audit did not examine the merits of the selection of the CF-35A nor of the number of jets that Canada would buy. Finally, the audit did not examine the potential economic benefits associated with this acquisition.

Criteria

We used the following criteria to conclude against our audit objective:

Criteria	Sources
National Defence has developed adequate plans and governance structures for the introduction of the CF-35A fighter aircraft into service.	• Policy on Results, Treasury Board, 2016 • Policy on the Planning and Management of Investments, Treasury Board, 2021 • Policy on Government Security, Treasury Board, 2019 • Directive on the Management of Projects and Programmes, Treasury Board, 2019 • Project Approval Directive, National Defence, 2019 and 2024 • Defence Administrative Orders and Directives 3000-0, Materiel Acquisition and Support, National Defence, 2018 • Strong, Secure, Engaged: Canada's Defence Policy, National Defence, 2017 • Applicable Supreme Audit Institutions' reports on best practices and lessons learned from the F-35 Joint Strike Fighter program

Criteria	Sources
National Defence is implementing its plans for the introduction of the CF-35A fighter aircraft into service by respecting costs and schedules.	• National Defence Act • Defence Production Act • Minister of National Defence Supplementary Mandate Letter, 2021 • Strong, Secure, Engaged: Canada's Defence Policy, National Defence, 2017 • Policy on Results, Treasury Board, 2016 • Directive on the Management of Projects and Programmes, Treasury Board, 2019 • Project Approval Directive, National Defence, 2019 and 2024 • Defence Administrative Orders and Directives 3000-0, Materiel Acquisition and Support, National Defence, 2018 • Action Plan on Gender-based Analysis (2016–2020), Privy Council Office, Status of Women Canada, and Treasury Board of Canada Secretariat
National Defence has identified and assessed risks to the introduction of the CF-35A fighter aircraft into service. National Defence has defined and implemented mitigation measures for the risks identified with the introduction of the CF-35A fighter aircraft into service. National Defence has monitored and reported on the implementation of risk mitigation measures for the introduction of the CF-35A fighter aircraft into service.	• Framework for the Management of Risk, Treasury Board, 2010 • Directive on the Management of Projects and Programmes, Treasury Board, 2019 • Project Approval Directive, National Defence, 2019 and 2024 • Defence Administrative Orders and Directives 3000-0, Materiel Acquisition and Support, National Defence, 2018

Period covered by the audit

The audit covered the period from 1 January 2023 to 30 September 2024. This is the period to which the audit conclusion applies. However, to gain a more complete understanding of the subject matter of the audit, we also examined certain matters that preceded the start date of this period.

Date of the report

We obtained sufficient and appropriate audit evidence on which to base our conclusion on 23 May 2025, in Ottawa, Canada.

Audit team

This audit was completed by a multidisciplinary team from across the Office of the Auditor General of Canada led by Nicholas Swales, Principal. The principal has overall responsibility for audit quality, including conducting the audit in accordance with professional standards, applicable legal and regulatory requirements, and the office’s policies and system of quality management.

Recommendations and Responses

Responses appear as they were received by the Office of the Auditor General of Canada.

In the following table, the paragraph number preceding the recommendation indicates the location of the recommendation in the report.

Recommendation	Response
2.32 National Defence should finalize its identification and assessment of risks that the Future Fighter Capability Project could face, develop clear and specific risk mitigations, and measure the effectiveness of mitigation actions.	**National Defence's response.** Agreed. National Defence will formally and regularly identify, assess and review all known FFCP risks ensuring risks are appropriately assessed and the mitigation strategies remain sufficient and effective. These actions will be completed by 30 September 2025.
2.37 National Defence should take immediate action to complete all plans and schedules for the project to bring the CF-35A aircraft into service and implement them in a timely manner.	**National Defence's response.** Agreed. National Defence will update and refine the Master Implementation Plan to manage project activities in accordance with the Integrated Master Schedule. As with all major projects, the plans for the FFCP are evergreen, and will continue to be monitored and updated when/where required. Further, National Defence will ensure that Schedule Performance is a standing item for review at appropriate oversight committees to enable a holistic view of all plans required to implement the CF-35A. These actions will be completed by 30 November 2025.
2.46 National Defence should review on at least an annual basis the Future Fighter Capability Project cost estimates and adjust them as needed to have timely and accurate information for decision making.	**National Defence's response.** Agreed. National Defence will review the Future Fighter Capability Project cost estimates on an annual basis, or more frequently should significant issues be identified. Updated cost estimates will be shared with key stakeholders to inform decision making. These actions will be completed by 30 November 2025.

Recommendation	Response
2.51 When reporting publicly on the estimated cost of bringing the CF-35A aircraft into service, National Defence should include all needed elements required for achieving Full Operational Capability.	**National Defence's response.** Agreed. There are multiple activities required to bring the CF-35A into service. In addition to FFCP there are infrastructure projects, pilot training requirements, software, equipment, airfields, barracks, and missiles among many other elements. FFCP has a finite scope as defined in Cabinet approved submissions. National Defence recognizes the dependencies FFCP has on other projects such as DCFI. We consider these distinct from the FFCP as they are required for additional capabilities, not only the CF-35A. National Defence will continue to report discrete projects to meet reporting and project approval requirements in accordance with Treasury Board Directive on the Management of Projects and Programmes as well as DND's own Project Approval Directive. National Defence will communicate the overall estimated cost of all elements directly linked to operationalizing the CF-35A. To note, not all elements or costs of other projects are dependencies for the CF-35A, some of the elements reflect the expense of having a fighter fleet or AirForce base in general. Not all costs are directly related to operationalizing the CF-35A. These actions will be completed by 30 November 2025.

Appendix—Text Descriptions of Exhibits

Exhibit 2.1—Planned CF-35A fighter aircraft delivery schedule—Text description

This timeline breaks down the total number of 88 CF-35A fighter aircraft by how many are scheduled to be delivered between 2026 and 2032.

From 2026 to 2027, 8 aircraft are scheduled to be delivered.

From 2028 to 2032, 80 aircraft are scheduled to be delivered.

In 2026 and 2027, the fighter aircraft are to be sent to Luke Air Force Base in Arizona. In 2028 to 2032, they are to be sent to Canada.

Source: Based on information from National Defence

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Exhibit 2.2—Future Fighter Capability Project implementation timeline—Text description

This timeline shows the following phases and milestones:

2022: Arrangement finalized

2023 to 2026: Phase 1—Immediate actions: Workforce, plans, processes, and agreements are established leading to beginning pilot training for the CF-35As in the United States.

Mid 2026: First aircraft at Luke Air Force Base in Arizona

2026 to 2029: Phase 2—Buildup: Interim infrastructure, maintenance, and other supports are set up to prepare for the first CF-35As to arrive in Canada.

Late 2028: First aircraft in Canada

2029 to 2030: Phase 3—Road to Initial Operational Capability: CF-35As are ready to conduct North American Aerospace Defense Command (NORAD) operations at 1 main operating base with 1 tactical fighter squadron, an air force unit of several fighter aircraft.

2030: Initial Operational Capability

2030 to 2032: Phase 4—Road to Enhanced Operational Capability: Three more tactical fighter squadrons are brought into service, progressively taking over more operational commitments from the retiring CF-18 fighter aircraft fleet.

2032 to 2033: Phase 5—Road to Full Operational Capability: All CF-35As are delivered. All operational commitments are fully transferred to the CF-35A fleet. All the required workforce, training facilities and courses, infrastructure, weapons, sensors, maintenance, and logistics support elements are in place. An operational training squadron is brought into service.

2033: Full Operational Capability

Source: Based on information from National Defence

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Exhibit 2.3—Air force fighter bases across Canada—Text description

This map shows the following:

Main operating bases—Where Royal Canadian Air Force (RCAF) fighters are stationed and conduct day-to-day operations and training. Locations: Cold Lake, Alberta, and Bagotville, Quebec

Other fighter locations—Where RCAF can deploy fighter aircraft. Locations: Inuvik and Yellowknife, Northwest Territories; Iqaluit, Nunavut; Comox, British Columbia; Winnipeg, Manitoba; Trenton, Ontario; Goose Bay, Newfoundland and Labrador; and Greenwood, Nova Scotia.

Source: Based on information from National Defence

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Exhibit 2.5—The Future Fighter Capability Project cost estimates increased by 46% from 2022 to 2024—Text description

This stacked bar chart shows the estimated acquisition costs by category in 2022 and 2024:

2022: Total $19.0 billion

Aircraft: $10.0 billion

Contingency: $2.0 billion

Infrastructure: $1.3 billion

Weapons: $1.6 billion

Other: $4.0 billion

2024: Total $27.7 billion

Aircraft: $12.2 billion

Contingency: $6.2 billion

Infrastructure: $2.5 billion

Weapons: $2.5 billion

Other: $4.3 billion

Note: The dollar figures are rounded.

Source: Based on data from National Defence

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