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Canadian Industrial Participation in the F-35 Joint Strike Fighter Program

Summer 2014

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Minister's Message

Canada's aerospace and defence industries are important for the strength of our economy and have a long history of success around the world. Due to our strong competitiveness in these industries, Canada's involvement as a partner in the F-35 Joint Strike Fighter (JSF) Program has yielded significant results for companies in Canada. As part of its response to Chapter 2 of the 2012 Spring Report of the Auditor General of Canada, our government regularly updates Parliament on the industrial benefits realized through Canada's participation in the JSF Program.

With the goal of enhancing transparency on F-35 industrial participation, our government tabled the first report in Parliament in December 2012. The report provided background on Canada's opportunities in the JSF Program, while setting the baseline for future reporting. Industry Canada released subsequent reports in spring and fall 2013, each containing updated numbers received from the prime contractors. This summer 2014 report provides the most recent numbers received from, and validated with, the prime contractors in winter 2014.

I am pleased to present the following report to Canadians with up-to-date information on the industrial benefits of Canada's participation in the F-35 Joint Strike Fighter Program.

James Moore
Minister of Industry

Canadian Industrial Participation in the F-35 Joint Strike Fighter Program

A. Purpose

The *2012 Spring Report of the Auditor General* (the Report) was released on April 3, 2012 and contained a chapter entitled *Replacing Canada's Fighter Jets*. In response to the Auditor General's report, the Government of Canada released a Seven-Point Plan, including a requirement that Industry Canada continue identifying opportunities for Canadian industry to participate in the F-35 JSF global supply chain, and provide updates to Parliament explaining the benefits.

In December 2012, the Government of Canada tabled a report to Parliament on the industrial participation of Canadian industry in the F-35 JSF Program: [Canadian Industrial Participation in the F-35 Joint Strike Fighter Program](#). This report provided background on Canada's industrial participation in the F-35 JSF Program, and up-to-date information on the identified F-35 JSF work opportunities available to, and successfully secured by, companies in Canada. Having established the baseline for future reporting in December 2012, the Government of Canada has continued to provide updates to Parliament, with subsequent reports released in spring and fall 2013. The current report provides an update on the most recent information on identified work opportunities related to the Program, as reported by the prime contractors in their winter 2014 updates.

B. How Canadian F-35 JSF Industrial Participation Values are Determined

The information in this report is based on data provided to Industry Canada bi-annually in reports from the two prime contractors of the F-35 JSF, Lockheed Martin and Pratt & Whitney. These bi-annual reports contain details regarding F-35 JSF industrial activity that is ongoing, or to be offered, in Canada. This includes work sourced for the prime contractors' own supply chain requirements, as well as work offered to companies in Canada through the prime contractors' principal suppliers.

After the reports are received by Industry Canada, the information is reviewed with the prime contractors, and further clarification is obtained, as needed, through ongoing correspondence. Industry Canada also regularly meets with many of the F-35 JSF prime contractors' principal suppliers, as well as the companies in Canada performing F-35 associated work, and uses these occasions to validate the data that is presented in the prime contractors' reports.

The information reported by the prime contractors is commercially sensitive. As such, while the Government of Canada is able to publicly report on the sum of the opportunities and contracts, it cannot release details on individual contracts, opportunities, or the values associated with one prime contractor's industrial participation plan. To do so would violate the terms of the Industrial Participation Memoranda of Understanding and could undermine the competitive position of companies in Canada.

For the purposes of this report, “opportunities” for companies in Canada is broken down into the following categories:

- **Contracts:** signed and executed purchase orders for development and/or production work on the planes and associated systems ordered by partner countries to date; and
- **Identified Opportunities:** the extension of contracted work, or new work which has been identified by the prime contractors as being open for competition to companies in Canada, but for which no contract has yet been signed.

C. Canadian F-35 JSF Industrial Participation Results

1. Contracts

Companies in Canada have thus far participated in the design/development and early production phases of the F-35 JSF Program. Based on the winter 2014 updates, thirty-two (32) companies currently have active contracts. This number is expected to fluctuate as some contracts finish and others are added. Companies in Canada have secured \$587 million US Dollars (USD) in contracts, an increase of \$83 million USD over the results in the fall 2013 report. This is work across a range of aerospace subsectors, including airframe, propulsion, tooling, software and mission systems, which would not have been available to our industry if Canada were not a partner in the F-35 JSF Program.

Table 1: Contracts as of Winter 2014

	Values in Billions USD <i>(rounded to the nearest million)</i>
Sum of Contracts	\$0.587

2. Identified Opportunities

Beyond reporting on the value of contracts, the prime contractors also report on identified work for which companies in Canada will be eligible to compete, based on the currently estimated partner country buy of approximately 3,100 aircraft. This includes opportunities related to the extension of existing production contracts, as well as new opportunities that have not yet been awarded through competition. In order to secure the extension of existing contracts, companies must continue to successfully demonstrate their ability to provide best value, “competitive technologies at competitive prices,” throughout the aircraft’s production phase. A company’s likelihood of securing a contract extension also depends on the type of work it is performing. Some companies in Canada have a decisive advantage in their area of work (for instance, a unique capability or control of vital intellectual property), increasing the likelihood of receiving contract extensions. Other contracts will be more difficult for companies to secure extensions, because there are a greater number of competitors.

As long as companies continue to demonstrate best value and remain competitive, the extension of production contracts is currently estimated at up to \$9.232 billion USD. This represents an increase of \$971 million USD since the previous report, and is primarily due to an increase in the value of identified opportunities for the production of spare parts to be used in future sustainment of F-35 jets.

In addition to the continuation of work associated with existing contracts, companies in Canada will have the opportunity to bid on additional production and sustainment work (as the Program moves into higher rates of aircraft production and requires a broader supply chain). Currently, the total of additional identified production and sustainment opportunities could be up to \$1.051 billion USD.

Table 2: Identified Opportunities as of Winter 2014

Phase	Values in Billions USD (rounded to the nearest million)
Production and Sustainment	
<ul style="list-style-type: none"> ○ Extension of production contracts, assuming that firms are successful in associated competitions ○ Other Identified Production and Sustainment Opportunities 	<p>\$9.232</p> <p>\$1.051</p>
Sum of Identified Opportunities	\$10.283

3. Sum of Contracts and Identified Opportunities as of Winter 2014

Based upon the most recent reports received from the prime contractors in winter 2014, the value of contracts plus identified opportunities for companies in Canada could be up to \$10.871 billion USD, an increase of \$938 million USD since the spring 2013 report.

Table 3: Contracts and Identified Opportunities as of Winter 2014

Category	Values in Billions USD (rounded to the nearest million)
Contracts	\$0.587
Identified Opportunities	\$10.283
Sum of Contracts and Identified Opportunities	\$10.871

All new opportunities, whether related to production or sustainment, will be reported to the Government of Canada by the prime contractors as they emerge.

It should be noted that opportunity values could remain at current levels or decline somewhat in the near term. This is because, in line with the Program's best value model, companies in Canada will not be successful in securing all of the currently identified opportunities. Furthermore, suppliers have already been identified to meet the requirements of the Program at its current rate of production, and global sustainment requirements are still being defined. The rate of production is not currently expected to ramp up until 2017-2018. Therefore, it is not likely that there will be an influx of new opportunities to offset those that may be lost to other bidders.

Because it is difficult to predict what proportion of the identified opportunities companies in Canada will secure, or how large the additional unidentified opportunities will be, an overall prediction of the final value of work that will be secured by companies in Canada (or even a range of possible outcomes) cannot be reliably made at this point.

4. Future Industrial Participation Prospects

Fundamentally, when opportunities are offered for competition, the amount and number of the contracts secured will depend on the success of the companies in Canada in these competitive processes. As has been the situation to date, and because the Program is based around the concept of best value, companies in Canada will not be successful in capturing all opportunities available.

In addition, a key factor is that the majority of future value projections are based upon the production of the anticipated partner fleet of approximately 3,100 aircraft. Any significant change in the partner nations' acquisition quantities could affect these projections. Similarly, non-partner acquisitions of the F-35 JSF — for instance those of Israel, Japan and South Korea — could affect the amount of work going to companies in Canada, as these acquisitions are not included in the 3,100 estimate.

At the same time, the prime contractors and their principal suppliers may need to make changes to their supply chains as production rates increase, which could affect the amount of work available to companies in Canada. In the near term, before production rates increase, we are unlikely to see a substantial increase in contracts.

Over the long-term, however, there may be other development opportunities to upgrade the aircraft's technology. Such work would represent additional opportunities not currently reflected in the data received by Industry Canada from the prime contractors at this time.

Finally, sustainment opportunities will become available as global and domestic needs for maintenance and training are more clearly defined. At this stage of the Program, sustainment planning is still ongoing. Over the life of the Program, substantial opportunities will be available in areas such as engine and airframe maintenance, component repair, and pilot and maintainer training. Companies in Canada will have the opportunity to compete for work, not only on domestic sustainment, but on sustainment for the global fleet.

Taken together, these factors make it clear that the value of contracts and available opportunities will vary over time. That being said, the following general observations can be made:

- Since the fall 2013 report, contract values have increased by \$83 million USD to \$587 million USD. In the near term, aircraft production will continue at a steady rate of about 35 aircraft per year. Should companies in Canada continue to demonstrate best value, it is reasonable to expect that contract values will continue to trend upwards, while, as previously noted, opportunity values are expected to remain flat or decline slightly.

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- Once the Program transitions to full-rate (i.e. higher rate) production, companies in Canada should benefit from the proportionately higher purchase orders or contracts associated with this higher rate of production, so long as they continue to demonstrate best value.
 - Post-2020, it is expected that Canadian companies could also benefit from sustainment contracts as there will be a sizeable partner fleet, both within North America and globally, that will require maintenance, repair and training.

D. Conclusion

Any decision to acquire a replacement for the CF-18 will be driven foremost by the operational needs of the Canadian Forces. Maximizing industrial opportunities is an important part of ensuring that Canadians benefit as much as possible from an acquisition, but it is one of many elements that factor into acquisition decisions.

Canada's participation in the F-35 JSF Program has given companies in Canada the opportunity to compete for design/development, production and sustainment contracts on the F-35 aircraft and associated systems. As a result, companies in Canada have secured \$587 million USD in contracts. If the Government of Canada decides to acquire the F-35 through the F-35 JSF partnership, companies in Canada are well positioned to sustain currently contracted work and would continue to be able to compete for additional production, sustainment and follow-on development work over the next several decades.

Through the National Fighter Procurement Secretariat (NFPS), Industry Canada will continue to work with other federal partners to fulfill the commitments outlined in the Government of Canada's response to Chapter 2 of the *2012 Spring Report of the Auditor General of Canada*.