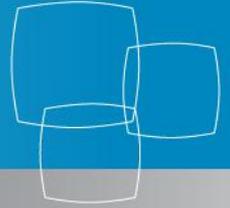




Industry
Canada

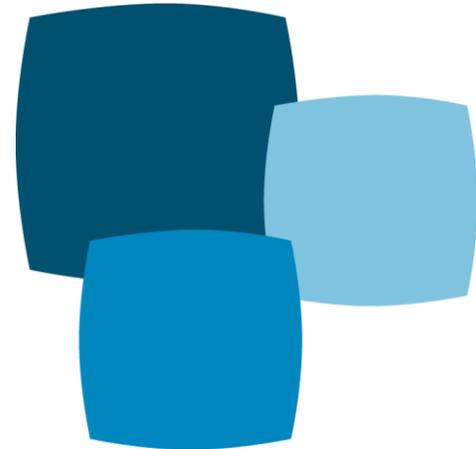
Industrie
Canada



The Joint Strike Fighter Program and Canadian Industrial Participation

December 8, 2011

Halifax, NS





- \$383+ billion USD cooperative effort to develop a fifth generation fighter aircraft.
- A high value, high technology, cooperative Defence development project is rare.
- Normally, Canada acquires ‘off the shelf’ products where development is complete and supply chains already established.
 - the IRB policy is applied after the decision to acquire.
- In the case of JSF, Canada’s involvement from the outset (1997) allowed Canadian companies to compete for early development and low-rate production work against companies from the other partner countries.
- Canadian companies became embedded in a global supply chain throughout the life of the program.
- Program Scale: 3100+ partner aircraft, 1500-2000 non-partner (FMS) sales
- Estimated opportunities on sustainment:
 - \$200-210 billion
 - approximately \$150-160 billion for the aircraft
 - approximately \$50-60 billion for engines





- Canada will acquire 65 aircraft, or 2% of the total partner fleet.

Partner	Planned Acquisition
US	2443
UK	138
Italy	131
Australia	100
Turkey	100
Netherlands	85
Canada	65
Norway	52
Denmark	48



- Canada's first aircraft delivery scheduled for 2016/2017.



- In 2006, the F35 partners signed the Production Sustainment and Follow-on Development (PSFD) MOU, and agreed to continue the “best value” approach.
 - formalized the Industrial Participation (IP) paradigm already in place
 - All partners agreed to forego offsets on their F35 acquisitions (i.e. no IRBs in Canada)
- Canadian companies must offer competitive technologies at competitive prices to win JSF work.
 - Canadian industry has access to significant opportunities, but must compete against companies located within other partner countries.
- *Implementing IP in Canada:*
 - In 2006, Industry Canada signed IP MOUs with each of the JSF prime contractors, including: Lockheed Martin on the aircraft structure and subsystems, Pratt & Whitney on the F135 engine, and GE Rolls-Royce (Fighter Engine Team) on the alternate F136 engine.





- Main objective: Optimize industrial participation for both the production and sustainment phases of the JSF program through a Government-wide team approach (IC, DND, DFAIT, RDAs)
 - Identify production and sustainment opportunities and match them to Canadian industrial capabilities
 - proactively informing Canadian companies of work opportunities
 - informing JSF prime contractors (worldwide) about Canadian capabilities
 - assist Canadian industry to establish partnerships with companies in other partner countries (drag chute, Joint Strike Missile, sustainment)
 - Monitoring progress on industrial participation
 - Ensure delivery of work as identified in the IP plans
 - Track and report on the status of work in Canada
 - Identify RCAF requirements for domestic sustainment – the Canadian footprint – including options for public/private partnerships





INDUSTRY CANADA

- Department with lead responsibility to coordinate efforts to optimize the industrial participation of Canadian firms in the JSF program (MOUs with three primes).

DEPARTMENT OF NATIONAL DEFENCE (DND)

- Responsible for acquiring F35 capability for Canada, requirements, operational issues, etc. Facilitates industrial participation in cooperation with other departments. Resolves export control issues related to IP opportunities.

REGIONAL DEVELOPMENT AGENCIES (RDAs)

- Regional Development Agencies work with Canadian industry at a regional level to optimize Canadian industrial participation in the JSF program and identify capable suppliers within their regions.

FOREIGN AFFAIRS AND INTERNATIONAL TRADE (DFAIT)

- DFAIT assists Canadian industry in global markets through its Trade Commissioner Service located at Embassies and Consulates around the world. For JSF, DFAIT helps promote Canadian capacity in the JSF global value chain and assists with outreach to JSF prime contractors.





- As of June 2011, approximately 65 Canadian companies have over \$370M USD in contracts on F35 development and initial production (up from \$310M USD in June 2010).
- As more aircraft are produced, Canadian companies receive bigger contracts.
 - Currently, 32 aircraft per year → expected to grow to over 200 aircraft per year by 2017
- According to prime contractors, significant long-term industrial opportunities have been identified for production, including aircraft systems, airframe, and engine work for the 3100+ partner aircraft.
 - does not include additional work resulting from sales to non-partner countries
 - does not include sustainment opportunities for the maintenance of the global fleet
- Canada's IP estimate is dynamic as the program and supply chains evolve; IP numbers are regularly updated by the Prime Contractors.





- Sustainment includes activities such as: aircraft and engine maintenance (repair and overhaul), and pilot and maintainer training (including simulation).
- A global approach to F35 sustainment is still under development.
- Sustainment opportunities for Canadian industry are emerging and will be available over the 40-year life of the program.
- A key variable will be the extent to which the Canadian fleet's needs can be met through the global approach to F35 sustainment, and what needs will require sovereign capability within Canada (DND).
- GoC working with Canadian industry and F35 prime contractors to pre-position our sustainment companies.
- Sustainment work will ramp up when significant numbers of aircraft are operational; i.e. post 2020.





1. **JSF Global Sustainment Solution (the solution being established by JSF partner nations to support all JSF users)**
 - Repairing sub-systems and components
 - Logistics software
 - Support equipment and tooling
 - Maintenance of training and support equipment
 - Depot level repairs and services
 - Warehousing

2. **Domestic Support to the RCAF**
 - Potential Domestic Sustainment Opportunities include:
 - Depot level maintenance or maintenance support
 - Services to support maintenance or flight training
 - Warehousing
 - Centralized Logistics support

3. **Sustainment Opportunities in Partner nations (partner with foreign industry)**
 - Depot level maintenance or maintenance support
 - Services to support maintenance or flight training
 - Warehousing
 - Logistics (software and centralized support)



Timeline and Key Milestones

Year	2006	2010	2015	2020	2025	2030	2035+
Canadian Spending Profile (Approximated)	\$551M PSFD MOU (out to 2051)						
			\$9B Acquisition				
				~\$7B Sustainment (20 year projection)			
Production Schedule	2 units						
	12 units						
	17 units						
	32 units						
	32 units						
	38 units						
	80 units						
	127 units						
	177 units						
				Multi Year (peaks at over 200 per year)			

Key Milestones for Canada:

- 2006: PSFD MOU
- 2010: Announcement of 65 aircraft
- 2016-2017: First delivery
- ~2017: Training begins
- ~2022: Sustainment begins



Canadian Government is working to continuously improve its approach to IP.

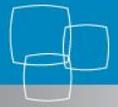
- Stronger engagement of Primes and Tier 1s and 2s as Sustainment solutions are developed and as alternate production sources are (potentially) identified.
 - Help Primes find best value in Canada by:
 - Ensuring that they have up-to-date contact information.
 - Working with Primes to provide Canadian companies with an accurate description of the work package and/or the technical capabilities required to do the work.
 - We want to be more connected to the RFI/RFP process in order to facilitate success and track results.





- Message for Canadian companies - be able to explain how your strengths will benefit the F-35 program:
 - effective technologies
 - competitive pricing
 - lower maintenance (life-cycle) costs
- Government must be aware of Canadian capability and company priorities and aspirations as they relate to F-35.
 - Company visits, regional engagement (information sessions).
 - We want to be engaged as you respond to RFIs and RFPs in order to facilitate success and track results.





- October 2010 marked the launch of the Canadian Sustainment Working Group - information sharing between government and some of Canada's key sustainment providers.
- December 7-9, 2010 - Sustainment conference in Fort Worth, Texas, to introduce Canadian companies to Lockheed Martin, and JSF sustainment concepts and opportunities.
- December 14, 2010 – In Ottawa, Pratt and Whitney Sustainment Workshop for potential F135 Engine sustainment opportunities for Canadian companies.
- Other regional outreach within Canada: Montreal in February and May 2011, Calgary in July 2011, BC and Ontario in August 2011, Toronto in November 2011, East Coast (Halifax) in December 2011.
- Outreach to Primes and Tier 1-2s – United Kingdom in November 2010, Western United States in July 2011, Eastern United States in November 2011.
- Northern Europe and Australia – 2012?
- Lockheed Martin's *F-35 Sustainment Supplier Summit* – 2012?





- Consider:
 - Read and Answer your mail – how many opportunities were missed?
 - Verify if the RFI/RFP is for JSF work – ask questions.
 - Think long-term; a win now positions your company for long-term future work.
 - Do not “no bid” simply because the initial purchase order seems small.
 - Respond on time.
 - Avoid elimination due to non-compliance:
 - Be aware of terms and conditions
 - Register for the controlled goods program
 - Contact Industry Canada for guidance
 - Seek assistance from DND if there are export control / ITAR issues to be resolved.





- SADI is designed to support Research and Development in the areas of Aerospace, Defence, Space and Security.
- One of the mandates of SADI is to help the Government fulfill international obligations (2002 MOU commitment).
- \$78 million committed so far to help Canadian companies develop JSF related technologies and capabilities.
 - Further investments currently under review.
- Special consideration given to JSF-related projects:
 - Support of up to 40% of eligible costs.
- To qualify for JSF consideration, proposals must demonstrate a direct link to the JSF supply chain. RFI/RFP, Technical Assistance Agreements (TAA), Non Disclosure Agreements, Letters of Interest (LOI), are examples of acceptable documents.





- The Government of Canada's approach to Industrial Participation is:
 - proactive and forward looking – addresses both production and sustainment.
 - a team approach - Departments and Agencies working as a team; including industry associations and individual companies where appropriate.
 - flexible – adapts due to program changes and shifting priorities and implements changes as new 'best practices' are identified.





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