



# Canada: Aircraft & Aircraft Parts

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## Summary

Canada is the world's third largest aerospace industry after the United States and Europe. In 2007, Canadian aerospace sales totaled \$22.7 billion. Canada's international aerospace reputation and know-how is among the best. As a result, many Canadian firms have captured a large share of the world's aerospace market in several product categories. Despite the global economic slowdown, Canada's aerospace industry is holding up quite well and presents export opportunities for U.S. aerospace suppliers. Although industry analysts' expectations of how much the industry will grow by in the next four years vary, all agree that Canada's demand for aircraft and aircraft parts products will continue to rise modestly through 2011. Some of the key factors fueling the Canadian aerospace market growth are: Canadian OEMs' order books are full, the Canadian government is investing in aerospace research and development, and is purchasing significant amounts of aerospace military equipment, Canadian companies are winning large contracts globally, and the increase in demand of fuel efficient aircraft will likely cause a rise in Canada's production of commercial aircraft and aircraft parts products. Therefore, the Canadian aerospace market offers numerous business opportunities for U.S. suppliers of aircraft and aircraft parts, including aircraft engines and engine parts.

## Market Demand<sup>1</sup>

In 2007, the Canadian market demand for aircraft and aircraft parts market was valued at \$15.4 billion, a 25% increase over the previous year. While final data is not available, the 2008 estimated market size is \$16.1 billion, a potential 5% growth over 2007. In 2007, the overall Canadian aerospace industry, which includes the aircraft and aircraft parts market, posted revenues of \$22.7 billion. About 400 aerospace companies employing 82,000 workers; in 2006 there were 79,000 workers and 75,000 in 2005. The Canadian aerospace industry is unique because approximately 80% of its domestic production is exported. Several Canadian aerospace companies are world leaders. Below is their market share by product category of international aerospace markets in 2004.

Canadian Aerospace Companies' Global Competitiveness and Leadership - 2004

Segment	World Market Share
20-90 seat regional aircraft	47%
Small gas turbine engines	34%
Commercial flight simulators	80%
Visual simulation sector	70%
Civil helicopters	14%
Landing gear	31%
New large aircraft landing gear	60%
Transport aircraft environmental control systems	60%

Source: Aerospace Industries Association of Canada, Teal Group.

<sup>1</sup> Aircraft and aircraft parts products analyzed in this report are listed in the HS Codes section (page 7). Aerospace services are not included.

The Canadian demand for aircraft and aircraft parts is positioned to experience growth for the next two years because of numerous factors. More details on these factors fueling Canadian demand for aircraft and aircraft parts are developed below.

### **1. Canada's "Canada First" Defense Strategy**

Canada's First Defense Strategy is an unprecedented defense policy adopted in May 2008 that proposes increased funding for military personnel, infrastructure, readiness and equipment in a volume not seen in decades. \$5.3 billion will be disbursed over the next five years, and starting in 2011, \$1.8 billion will be spent yearly. Over the next 20 years this new measure is expected to provide \$12 billion in defense funding. Moreover, government purchases include an almost equal amount of value-added contracts awarded to Canadian companies.

### **2. Canadian Success at the Farnborough International Air Show 2008**

Canadian companies signed contracts worth millions – below are a few examples:

- Bombardier launched its new C-Series regional aircraft to enter the commercial regional market segment.
- Héroux-Devtek won contracts worth more than \$57 million to supply landing gear and structural components.
- CAE won contracts valued at \$128 million for commercial flight simulators and military training programs.
- Pratt & Whitney Canada launched the PurePower engine family - next-generation commercial and business jet engines offering double-digit improvements in fuel efficiency, noise reduction and operating costs.

### **3. Canada's participation in the U.S.-led Joint Strike Fighter Program**

Canada is part of the U.S.-led Joint Strike Fighter (JSF) program. This program is building the new F-35 Lighting II fighter jet to replace older jets. Canada invested \$160 million in the program and, so far, over 70 Canadian companies won contracts worth \$212 million. According to Lockheed Martin, the JSF will likely generate up to \$9 billion in contracts for Canadian companies by 2035.

### **4. Leading Canadian Aerospace Companies' Success in the World Marketplace**

- Bombardier Aerospace's sales are stronger than expected; its backlog was \$26 billion on October 31, 2008. In September 2008, Bombardier's aerospace and transport sales were 22% higher than the same time last year.
- ACTS's Engine Maintenance Center in Montreal has new MRO agreements with GE worth \$2.5 billion
- CAE signed military simulation and training contracts worth \$227.1 million during FY09's 2nd quarter alone.
- Pratt & Whitney Canada (PWC) enjoys record production levels and expects to deliver over 4,000 engines this year alone. PWC is investing millions in several new MRO and production facilities across Canada: PWC is building a \$575.3 million Mirabel Aerospace center for engine testing and final assembly.

### **5. Corporate and Government Investment**

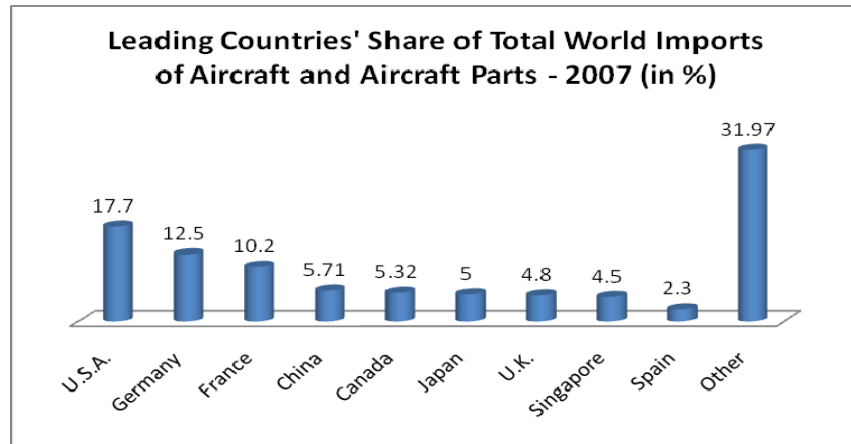
The Canadian government and private industry are increasingly investing in the sector to ensure Canada maintains its competitive position in the world aerospace industry. Over the last 6 years, investment in capital and research and development consistently exceeded \$1 billion. In 2007, investment totaled \$1.6 billion, up from \$1.4 billion in 2005. On average, more than 70% of investment is spent on research and development.

The main Canadian federal aerospace research and development program was launched in 2007 and is called the Strategic Aerospace and Defense Initiative (SADI). SADI is a repayable contribution program designed to encourage research and development, and provide enhanced opportunities for Canadian aerospace companies. Over the next five years, Canadian companies will be receiving a total of \$900 million in loans to develop new technologies; some of the projects being funded are part of the Joint Strike Fighter program.

The private sector is also an active investor: in 2005, aerospace and defense companies were Canada's third largest investors in R&D, representing 11% of all industrial R&D investment in Canada.

## Market Data

When compared on the world stage, Canada is the top 5<sup>th</sup> importer of aircraft and aircraft parts in the world. Canada relies heavily on access to foreign markets to sell its aircraft and aircraft parts manufacturing goods. Therefore, its aircraft and aircraft parts domestic market is small, but its demand for aircraft parts is great.



Source: Global Trade Atlas.

Canada's aerospace industry and demand will continue to experience modest growth due to several factors including large order backlogs. During 2008, major Canadian aerospace original equipment manufacturers and system integrators received record breaking aircraft and aircraft parts orders. We are now seeing a softening of demand; lower order intake has already been cited by several Canadian aerospace companies. Nonetheless, because their order books are full to the brim and will fuel production until at least 2010, the impact of the economic slowdown will likely only be felt in early 2010. Many aerospace companies hope that by then the world economy and the demand for aircraft will have picked up again.

Other factors fueling Canada's demand for aircraft products are: the re-organizing of routes by airlines causing these to purchase new regional aircraft, the purchase of fuel efficient, newer aircraft, and the purchase of business jets by the affluent of emerging markets. This growth is modest in comparison to predictions earlier this year.

### Canadian Aircraft and Aircraft Parts Market

	2006	2007	2008 (estimated)	2009 (estimated)
<b>Market Size</b>	\$ 12.3	\$ 15.4	\$ 16.1	\$ 17.1
<b>Domestic Production</b>	\$ 15.4	\$ 18.2	\$ 18.5	\$ 19
<b>Exports</b>	\$ 12.3	\$ 14.6	\$ 14.8	\$ 15.2
<b>Imports</b>	\$ 9.1	\$ 11.7	\$ 12.4	\$ 13.3
<b>Imports from the U.S.</b>	\$ 5.2 (57%)	\$ 6.8 (58.2%)	\$ 7.5 (60.3%)	\$ 8.2 (61.4%)

Source: Global Word Trade Atlas. All figures are in \$U.S billion.

The aircraft and aircraft parts products covered by this study correspond to the following HS codes: 7007110020, 7007110030, 7007210031, 7007210039, 840710, 840910, 841111, 841112, 841121, 841122, 841181, 841182, 841191, 841199, 841210, 841319, 841330, 8479899997, 8525100091, 8525100096, 8525200083, 8525500020, 8525600010, 8526100011, 8526100019, 8526910010, 8527909910, 8801, 8802, 8803, 8804, 8805, 901410, 901420, 940110, 9014900091, 9401902000. Aircraft and aircraft parts services are not included.

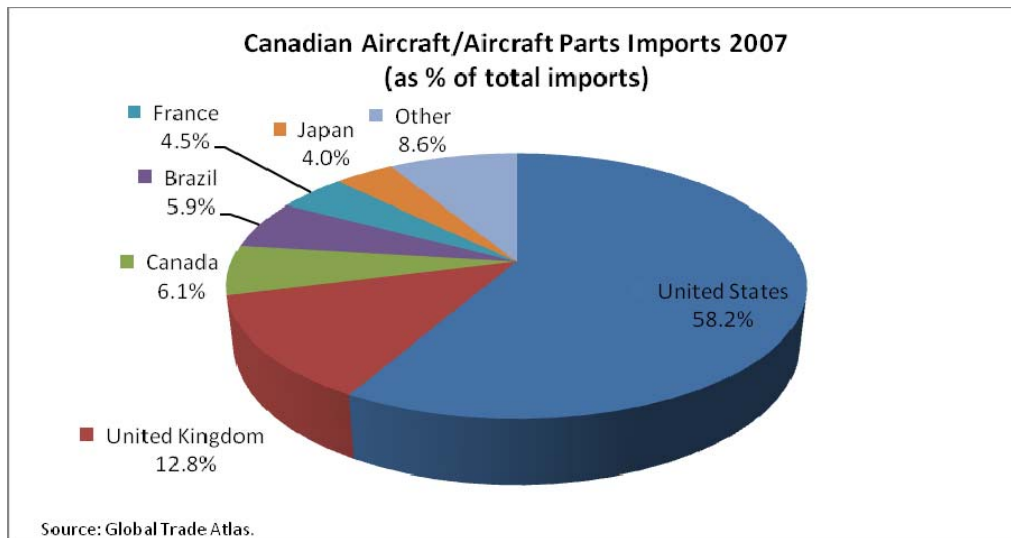
While Canada is a net-exporter of aircraft and aircraft parts, since 2006 we notice the emergence of a new trend: the trade balance is lessening because imports are rising faster than exports. In 2007 imports reached \$11.7 billion, an increase of 28% from 2006, but aircraft and aircraft parts' exports grew by 18%, reaching \$14.6 billion.

This can be partially explained by the depreciating value of the U.S. dollar in comparison to the Canadian dollar during 2008. A lower U.S. dollar made it attractive for numerous Canadian aerospace manufacturers to purchase expensive manufacturing equipment and greater amounts of finished raw materials such as titanium alloys. Conversely, a high Canadian dollar made it more difficult for Canadian aircraft products, usually cheaper because of the traditionally lower Canadian dollar, to be competitive when compared to U.S. products.

Industry estimates show that imports will reach \$12.4 billion by the end of 2008 and \$13.3 billion by 2009. From the 2008 data gathered so far, imports are growing faster than exports again.

### **Canadian Aircraft / Aircraft Parts Imports Sources: U.S. Captures a Large Share of Imports**

The United States is the largest exporter of aircraft and aircraft parts to Canada. In 2007, more than half of all aircraft and aircraft parts imports were from the United States – 58.2%. The U.S.'s share of imports has been rising over the last few years, and more importantly, Canada's imports from the U.S. are rising faster than Canada's total worldwide imports. It is estimated that the U.S. share will grow to 61.4% in 2009.



### **Other Foreign Suppliers**

The second largest exporter of aircraft and aircraft parts to Canada is the U.K., with 12.8% of total Canadian imports in 2007. The U.S. and U.K. are followed by re-imports from Canada, Brazil, Japan, France and Germany. Combined, European countries account for over 23% of all Canadian imports.

Noteworthy foreign importers are China and Mexico. Mexican imports more than doubled in the last three years and grew by 82% in 2007; Chinese imports grew by 34% in 2007. Combined, however, their share of Canadian aircraft and aircraft parts imports is negligible, reaching 1.52% in 2007. We have chosen to display re-imports from Canada to underscore the importance that trade plays in this industry sector. Unlike many other industries, the aerospace sector is characterized by a large amount of value-added work being done to each part by different countries/corporations before it is finally assembled in an aircraft.

Significant countries whose exports to Canada grew between 2006 and 2007 are: Brazil (exports grew by 57%), Canada re-export (43%), U.S. (31.4%), Poland (26.48%), Germany (17.4%), U.K. (16.8%) and France (12.8%).

## Best Prospects

In 2007, aircraft and aircraft parts products belonging to HS 8802, 8803, and 8805 product categories accounted for over 55% of Canadian production, 60% of exports to Canada, and 58% of U.S. aircraft and aircraft parts exports to Canada. These HS product categories include helicopters, airplanes and spacecraft (HS 8802), parts of helicopters, airplanes, balloons, dirigibles and spacecraft (HS 8803), and flight simulators, aircraft launching gear, deck arrestors and similar gear (HS 8805). U.S. firms producing these aircraft and aircraft parts should do well in the Canadian market.

Also of significance is Canada's role as a premier world supplier of aircraft engines and engine parts such as small turbofan, turboprop and turbo jets engines. In 2007, aircraft engines and engine parts production accounted for about 24% of total Canadian aircraft and aircraft parts production. U.S. imports dominate this sub-sector and accounted for approximately 60% of all engine-related imports between 2005 and 2007.

Below is a table outlining Canada's leading import categories in 2007 by volume, by rate of growth between 2006 and 2007, and also leading U.S. aircraft and aircraft parts exports to Canada.

## Leading Canadian Aircraft and Aircraft Parts Imports

### Top 5 aircraft/aircraft parts imported by Canada in 2007:

	\$ Value
• Aircraft, powered; spacecraft and launch vehicles (HS 8802)	\$3.9 billion
• Parts of balloons etc., aircraft, spacecraft etc. (HS 8803)	\$3 billion
• Turbojet and turbo propeller parts (HS 841191)	\$1.7 billion
• Turbojets of a thrust exceeding 25 Kn (HS 841112)	\$1 billion
• Gas turbine parts nesoi (HS 841199)	\$558 million

### Fastest growing imports of aircraft/aircraft parts into Canada by import growth rate in 2007:

		\$ Value
• Turbo propellers of a power not exceeding 1,100 Kw (HS 841121)	117%	(\$55.8 million)
• Turbo propellers of a power exceeding 1,100 Kw (HS 841122)	103%	(\$49.8 million)
• Radar apparatus, for use in civil aircraft (HS 8526100011)	85.14%	(\$27.7 million)
• Aircraft, powered; spacecraft & launch vehicles (HS 8802)	66.6%	(\$3.9 billion)
• Laminated safety glass (o/t windshields) for aircraft (HS 7007210039)	52.04%	(\$2.5 million)
• Turbojets of a thrust exceeding 25 Kn (HS 841112)	47.3%	(\$1 billion)

### Leading U.S. aircraft/aircraft parts imported by Canada by total import value in 2007:

		06/07 Growth Rate
• Aircraft, powered; spacecraft & launch vehicles (HS 8802)	\$2.4 billion	(84.7%)
• Parts of balloons etc., aircraft, spacecraft etc. (HS 8803)	\$1.46 billion	(10.6%)
• Turbojet and turbo propeller parts (HS 841191)	\$1 billion	(16.44%)
• Turbojets of a thrust exceeding 25 Kn (HS 841112)	\$599 million	(26.1%)
• Instruments & appl. for aero/space nav. except compass (HS 901420)	\$281 million	(23.8%)

The U.S. is significantly present in all of the leading Canadian aircraft and aircraft parts import markets. It is exporting to Canada products that are among Canada's top imports. The U.S. is extremely well-placed to continue selling its goods to Canada's key aerospace markets.

## **Aircraft and Aircraft Parts Key Suppliers**

### **Domestic Suppliers**

Canadian suppliers are a mixture of Canadian companies and foreign-owned companies established in Canada. The largest 30 firms represent 95% of production. Most aerospace firms in Canada are small and medium size companies belonging to both domestic and global supply chains.

Canadian aerospace suppliers at the OEM level, tier 1 and tier 2 levels source their needs domestically, but rely heavily on the United States and European countries for more technologically-advanced, cutting-edge technology supplies. Tier 3 and tier 4 level suppliers will source raw materials locally, but very often purchase finished raw materials from outside sources such as the United States.

Some of the leading Canadian and foreign-owned aerospace companies in Canada are: Pratt & Whitney Canada (small aircraft engines), Bombardier Aerospace (regional, business and amphibious aircraft), Bell helicopter Textron Canada Ltd. (civil helicopters), Goodrich (landing gears), Messier-Dowty (landing gears), Héroux-Devtek (landing gears), ExelTech Aerospace (MRO), CAE (flight simulators and training services), CMC Electronics (avionics), Magellan Aerospace Corporation, Rolls Royce Canada, Lockheed Martin Canada, and GE Canada.

### **US Suppliers**

The United States is at a considerable advantage in the Canadian aircraft and aircraft parts market because of its geographic proximity to Canada. Due to the high precision machining and high-tech technologies that go into making aircraft and aircraft parts, products are often shipped across the US-Canada border multiple times before being incorporated into an aircraft. Other advantages that ensure the U.S. is likely to keep its significant market share of Canadian aircraft and aircraft parts imports: similar business cultures, established business networks, close allied relationship in matters of defense-related technology, ITAR facilitations for Canadian suppliers and the existence of the Canada-U.S. free trade agreement, NAFTA.

### **Non-U.S. Foreign Suppliers**

Some of the major non-U.S. foreign players in Canada are: Rolls Royce (UK), Ultra (UK), Selco (UK), Thales (France), Mecachrome (France), Alenia (Italy), EADS (Netherlands), Sweden (SAAB), and Mitsubishi (Japan). However, their share of aerospace exports to Canada is not as significant as the U.S. Nonetheless, some European countries (Poland, Germany, U.K) and other markets (Mexico, China, Brazil, Japan) had an impressive jump in their exports to Canada in 2006-2007.

## **Prospective Buyers**

### **End Users Characteristics**

In 2003, 11% of Canada's aerospace industry was military related. Over the last three years, there has been a noticeable shift – Canadian aerospace companies are diversifying and producing more military-related products. Today, about 80% of Canadian aerospace products are for the civil market, and 20% for the military marketplace. While this trend is here to stay, Canada remains a large civil/commercial aerospace market.

### **Government Procurement**

Canada's First Defense Strategy is a defense policy with unprecedented commitment to invest in the Canadian armed forces. In the last 36 months, the government announced it plans to purchase equipment worth \$45 to \$50 billion that includes: fixed-wing search and rescue aircraft, maritime patrol aircraft, and fighter aircraft. So far, the government acquired 4 Boeing C-17 strategic airlift aircraft, ordered 17 C-130J



tactical aircraft, and purchased Boeing Chinook helicopters. Many of these purchases are conditional on awarding Canadian companies value-added contracts worth about the same amount as the original purchase.

U.S. companies are eligible to compete in Canadian government procurement and can contact the Department of National Defense (DND). DND discloses purchasing programs on their website [http://www.forces.gc.ca/site/home\\_e.asp](http://www.forces.gc.ca/site/home_e.asp). All Canadian federal procurement tenders are on [www.merx.com](http://www.merx.com).

## Market Entry

Market entry strategies depend on the product/service that a U.S. exporter would like to sell in the Canadian aircraft and aircraft parts marketplace. If the product is geared at OEMs, then firms need to be aware that a shift is occurring in procurement. OEMs such as Bombardier have moved away from managing many suppliers to building a long-term relationship with systems integrators, who in turn manage suppliers. Therefore, companies need to be mindful of this new reality and approach systems integrators, in addition to contacting OEMs directly.

If U.S. firms are looking for agents or distributors, they need to select potential business partners that have been working in the industry for several years and have an established network of contacts with aerospace OEMs and systems integrators. When doing business in Quebec, U.S. firms need to be mindful that although many speak English, French is the predominant language of most business places. A demonstrated sensitivity to this business culture is an added bonus when penetrating or increasing your presence in the Quebec aerospace market.

## Market Issues & Obstacles

Canadian and U.S. companies have open access to each other's market due to the North American Free Trade Agreement (NAFTA). According to the 2008 USTR National Trade Estimate Report on Foreign Barriers (NTE), no significant foreign barriers to U.S. exports were found in the aerospace sector. Notwithstanding, aircraft products must meet Canadian aircraft product standards. For more information, contact the following organizations: Bureau de Normalization du Quebec, Canadian Standards Association. (Contact information below)

## Ressources & Contacts

### Standards

Bureau de normalization du Quebec  
Tel: (418) 652-2238  
Website: [www.bnq.qc.ca](http://www.bnq.qc.ca)

Canadian Standards Association (CSA)  
Tel: (416) 747-4058  
Website: [www.csa-international.org](http://www.csa-international.org)

### Associations

#### Aerospace Industries Association of Canada

Ottawa, Ontario  
Tel: 613.232.4297  
Fax: 613.232.1142  
[www.aiac.ca](http://www.aiac.ca)

#### Quebec Aerospace Association

Montreal, Quebec  
Tel: 514.596.2388  
Fax: 514.596.3395  
[www.aqa.ca](http://www.aqa.ca)

#### Ontario Aerospace Council (OAC)

Kitchener, Ontario  
Tel: 519.895.2442  
Fax: 519.895.2452  
[www.ontario.org](http://www.ontario.org)

#### Aviation Alberta

Edmonton, Alberta  
Tel: 780.756.4450  
[www.aviationalberta.com](http://www.aviationalberta.com)

### For More Information

If your company would like to have more information on business opportunities in the Canadian aerospace marketplace, please contact Ms. Gina Bento, National Commercial Specialist for the Canadian Aerospace Industry via e-mail at: [Gina.Bento@mail.doc.gov](mailto:Gina.Bento@mail.doc.gov); phone: 1-514-398-9695 ext. 2260; fax: 1-514-398-0711. Please visit our website: [www.buyusa.gov/Canada](http://www.buyusa.gov/Canada) for updated trade missions and upcoming events. To receive market updates on upcoming business opportunities and trade events, please email her at [Gina.Bento@mail.doc.gov](mailto:Gina.Bento@mail.doc.gov) and ask to be placed on her mailing list.

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