

Competitive
INNOVATIVE
Sustainable



Aerospace and Defence Industry in Atlantic Canada



Atlantic Canada
Opportunities
Agency

Agence de
promotion économique
du Canada atlantique

Canada



Located on Canada's east coast and situated strategically between the United States and Europe, Atlantic Canada has developed a strong international reputation for supplying quality products and services, innovative technologies and designs, and robust value-added supply chain capabilities to aerospace and defence markets worldwide.

That's why global industry leaders such as Pratt & Whitney, L3 Communications, General Dynamics and Honeywell have chosen to do business in Atlantic Canada.

Atlantic Canada's
aerospace and defence
industry has reached
overall revenues of
C\$1 billion, and the
momentum continues.

SOURCE: *Provincial Industry Associations (2008)*



Soaring Growth

Atlantic Canada's growing aerospace and defence industry offers international companies a world of opportunities

Atlantic Canada's aerospace and defence industry is soaring to new heights.

Exports have risen rapidly in recent years, with a 189%¹ increase in the export of products and parts from 2001 to 2008. The industry has reached overall annual revenues of C\$1 billion², and the momentum continues.

The primary market for Atlantic Canada's aerospace and defence industry is the United States. In 2008, nearly 40% of the region's aerospace and defence products were shipped to the U.S.

Business opportunities in Atlantic Canada are further enhanced by the Government of Canada's planned acquisition of approximately C\$17 billion in equipment and related support services for the Canadian Forces, including airplanes, helicopters, ships and trucks. These acquisitions will create substantial, long-term economic benefits for Atlantic Canadian aerospace and defence companies.

Atlantic Canada is poised for growth and we are looking for partners.

Aerospace and defence companies who are looking for an ideal environment in which to invest need look no further. If you want to be part of a vibrant, growing industry, consider this:

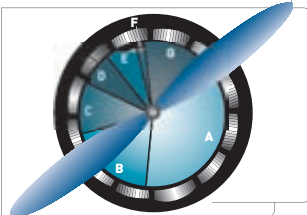
- Atlantic Canada is the gateway to North America from Europe – world-class air, land and sea access to all major U.S. markets;
- Atlantic Canada is ranked among the lowest business-costs locations within G7 countries;
- Atlantic Canada is home to more post-secondary graduates per capita than the Canadian and U.S. averages, resulting in a highly skilled labour force;
- Atlantic Canada has a supportive business environment and world-class, cutting-edge expertise in IT, electronics and composites aerospace businesses in both the military and commercial-related applications; and
- Atlantic Canada's research and development initiatives are supported through government-funded programs including competitive regional incentive programs.

These are five reasons to invest in Atlantic Canada. We call this Canada's *Atlantic Advantage*. Want to learn more?

ATLANTIC CANADA AEROSPACE AND DEFENCE EXPORTS (5-year average)

GEOGRAPHIC BREAKDOWN-AEROSPACE AND DEFENCE PRODUCTS AND PARTS

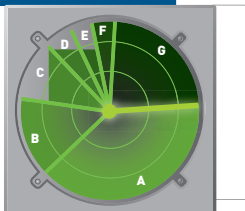
UNITED STATES	40.5%	A
UNITED KINGDOM	19.2%	B
CZECH REPUBLIC	11.4%	C
GERMANY	7.2%	D
FRANCE*	6.8%	E
AUSTRIA	1.9%	F
OTHER	13.0%	G



SOURCE: Statistics Canada (2008): NAICS code 3364 - Aerospace Product and Parts Manufacturing. * Includes Monaco, French Antilles

ATLANTIC CANADA AEROSPACE AND DEFENCE EXPORTS (2008)

UNITED STATES	39%	A
CZECH REPUBLIC	14%	B
FRANCE*	11%	C
UNITED KINGDOM	5%	D
SOUTH AFRICA	4%	E
AUSTRIA	4%	F
OTHER	23%	G



SOURCE: Statistics Canada (2008): NAICS code 3364 - Aerospace Product and Parts Manufacturing. * Includes Monaco, French Antilles

¹ Statistics Canada

² Provincial Industry Associations (2008)

Strategic Location

Atlantic Canada is the location of choice for international firms interested in entering, or expanding within, the North American market

Atlantic Canada is uniquely positioned as the gateway between Europe and North America. The North American Free Trade Agreement (NAFTA) provides a significant advantage for investors – unfettered access to the largest economic market in the world, with a consumer-base of 425 million people.

Atlantic Canadian ports are two days closer to Europe than any other port on the eastern seaboard, and within one day's drive of half of the North American population. With the growth of the Indian sub-continent and the Arabian Peninsula, Atlantic Canada is quickly becoming the gateway between the Suez Canal and the North American market.

Atlantic Canadian companies export over C\$107 million worth of trade to 180 countries, every day. Three of the four Atlantic Provinces (New Brunswick, Nova Scotia, Newfoundland and Labrador) hold the distinction of being rated among the top 10 U.S. states and Canadian provinces for exports per capita.

Canada's *Atlantic Advantage* is further evidenced by our infrastructure, which brings the world to our door:

- world-class, high-speed telecommunications;
- year-round deepwater ports;
- international airports;
- rail service; and
- specialized trucking.

Atlantic Canada's four provincial governments are partnering with the federal government to develop the Atlantic Gateway, a project that will inject hundreds of millions of dollars into the region's transportation infrastructure over the next few years.

It is only going to get better.

Want to learn why companies like Pratt & Whitney and Honeywell have chosen Atlantic Canada for their aerospace and defence business activities? Then read on.

ATLANTIC CANADA'S AEROSPACE AND DEFENCE INDUSTRY AT A GLANCE

Total companies	200+
Total employment	10,000+
Industry revenue	C\$1 billion
Export growth (2001-2008)	189%
Atlantic Canadian military bases	7 military facilities, including 3 super-bases
Canadian Armed Forces personnel and civilian staff	24,000
Annual Atlantic military operating budget	C\$1.6 billion





Proven Cost Advantages

Atlantic Canada's cost advantages will drive your business growth

Atlantic Canada's low business costs help fuel the region's aerospace and defence industry. The 2008 edition of *Competitive Alternatives: KPMG's Guide to International Business Location* compared the costs of an aircraft parts manufacturing operation in selected locations worldwide and found that Atlantic Canada has among the lowest business costs within the G7 countries. The greatest cost advantages are found in the areas of land, construction, labour and energy.

Atlantic Canada's cities have ranked among the very best in all of the previous KPMG reports. In the 2008 study of 95 featured locations, three Atlantic Canadian cities finished in the top 10 of cities in the G7 countries.

Atlantic Canada's proven cost advantages:

- Among the lowest business-cost regions in the G7
- Among the lowest electricity costs in the G7
- 18% lower total labour costs than in the U.S.
- Land and construction costs are some of the lowest in North America
- 4.8% lower effective tax rate than in the U.S.
- Lower direct health care costs

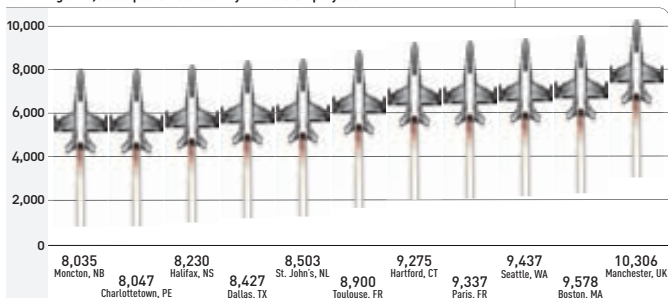
Atlantic Canada
is among
the lowest
business-cost regions
in the G7.

SOURCE: *Competitive Alternatives: KPMG's Guide to International Business Location*.

TOTAL LOCATION SENSITIVE COSTS (US\$ 000s)*

AIRCRAFT PARTS MANUFACTURE

Based on a business model for aircraft parts manufacturing utilizing a 76,500 square-foot facility with 85 employees.



COMPARATIVE BUSINESS COSTS INDEX *

AEROSPACE INDUSTRY / AIRCRAFT PARTS MANUFACTURING

LONDON, UK	126.9	ST. JOHN'S, NL	97.6
FRANKFURT, DE	115.9	SYDNEY, NS	96.1
NEW YORK, NY	108.6	HALIFAX, NS	95.5
SAN DIEGO, CA	105.3	PICTOU, NS	94.1
SEATTLE, WA	104.6	CHARLOTTETOWN, PE	94.1
PARIS, FR	103.8	MONCTON, NB	94.0
**NORTH VIRGINIA, VA	100.7	TRURO, NS	92.5
TOULOUSE, FR	100.6		

SOURCE: *Competitive Alternatives: KPMG's Guide to International Business Location, 2008 Edition.*

* Business costs are expressed as an index, with the United States average being assigned the baseline index of 100. A cost index of less than 100 indicates lower costs than those in the U.S.

** Metro DC

SOURCE: *Competitive Alternatives: KPMG's Guide to International Business Location, 2008 Edition.*

* Costs that vary depending on which city a firm is located.

Excellent Workforce

Atlantic Canada has the type of employees you want – well-educated, hard-working and reliable

A highly educated region with more post-secondary graduates per capita than the Canadian and American averages, Atlantic Canada has the brainpower to fuel its growing aerospace and defence industry in the future.

Atlantic Canada's Workforce: A Snapshot

- Population: 2.3 million (2008)
- Workforce: 1.2 million (2008)
- 17 universities and over 17,000 graduates annually
- 77,000 full-time and 14,500 part-time post-secondary students
- Highly respected engineering and computer science educational institutions
- More post-secondary graduates per capita than the Canadian and U.S. averages
- Among the lowest employee absenteeism and turnover rates in North America, resulting in significantly lower recruiting and retraining costs
- Atlantic Canada spends approximately 38% more on vocational training than the rest of Canada
- Atlantic Canada's labour costs are 18% lower than the U.S. average

Quality Education and Training Facilities

Atlantic Canada's universities offer quality education and training facilities that produce hundreds of highly qualified engineers, computer scientists and other related specialists every year. The region's universities are complemented by a network of community colleges that offer diploma programs related to the aerospace and defence industry, with courses ranging from avionics to engine repair to aircraft maintenance.

Atlantic Canada
has more
post-secondary
graduates per capita
than the Canadian
and U.S. averages

SOURCE: *Competitive Alternatives:
KPMG's Guide to International
Business Location*





The number of aerospace engineers, aircraft technicians, mechanics and inspectors is growing faster here than elsewhere in Canada, and Atlantic Canada continues to produce highly skilled professionals thanks to its many training facilities and post-secondary institutions.

AEROSPACE AND DEFENCE-RELATED TRAINING PROGRAMS IN ATLANTIC CANADA

College of the North Atlantic (NL)
 Aircraft Maintenance Engineering Technology
 Aircraft Structural Repair
 Electronics Engineering Technology

Holland College (PE)
 Aircraft Gas Turbine Engine Repair and Overhaul
 Electromechanical Technician
 Precision Machining

Memorial University of Newfoundland (NL)
 Bachelor of Marine Studies
 Marine Engineering
 Naval Architecture

Mount Allison University/Moncton Flight College (NB)
 Joint Bachelor of Science (B.Sc.) in Aviation

New Brunswick Community College (NB)
 Aircraft Maintenance

Nova Scotia Community College Aviation Institute (NS)
 Commercial Pilot and Aircraft Technician
 Aircraft Flight Dispatcher
 Composites Technician

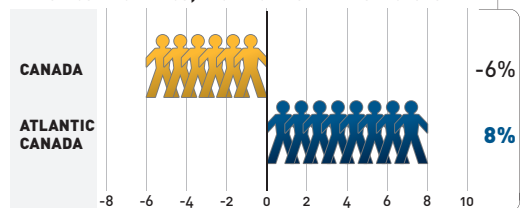
University of New Brunswick (NB)
 Bachelor of Business Administration with
 a concentration in Aviation and
 Operations Management

Moncton Flight College (NB)
 Aviation Technology
 Pilot Training

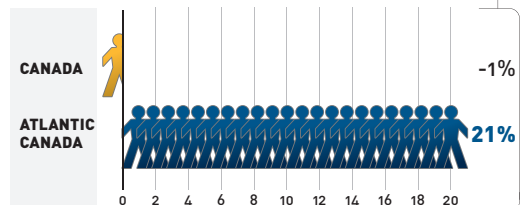
GFT Aerospace College (NL)
 Pilot Training (fixed wing and helicopter)
 Composite Repair
 Aviation Welding

EMPLOYMENT GROWTH: AEROSPACE-RELATED OCCUPATIONS (2001-2006)

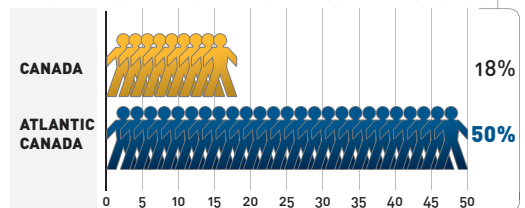
AIRCRAFT INSTRUMENT, ELECTRICAL AND AVIONICS MECHANICS, TECHNICIANS AND INSPECTORS



AIRCRAFT MECHANICS AND AIRCRAFT INSPECTORS



AIRCRAFT ASSEMBLERS AND AIRCRAFT ASSEMBLY INSPECTORS



SOURCE: Statistics Canada.

Globally Competitive Companies

Atlantic Canadian firms are global players and offer competitive, innovative solutions

Atlantic Canada is home to more than 200 successful aerospace and defence firms with over 10,000 dedicated employees providing high-quality, advanced products and services. Many of these firms have proven their expertise as critical suppliers to Canada's Armed Forces and are now world leaders in their fields, competing globally by supplying essential parts for clients like Airbus, Boeing as well as Canadian and foreign militaries.

Atlantic Canada's aerospace and defence industry offers a range of capabilities, including:

- globally recognized fixed and rotary wing aircraft maintenance, repair and overhaul capabilities;
- metal and composite structural components manufacturing;
- complete wiring harness and electronic systems design and manufacturing;
- aircraft engines manufacturing and repair;
- advanced aerospace and defence systems training programs;
- highly certified aviation, command/control/simulation IT systems development and integration;
- expertise in ocean mapping and charting, cold-water engineering, and remote sensing; and
- shipbuilding, repair and engineering.

Here are a few examples of progressive, innovative Atlantic Canadian aerospace and defence firms.

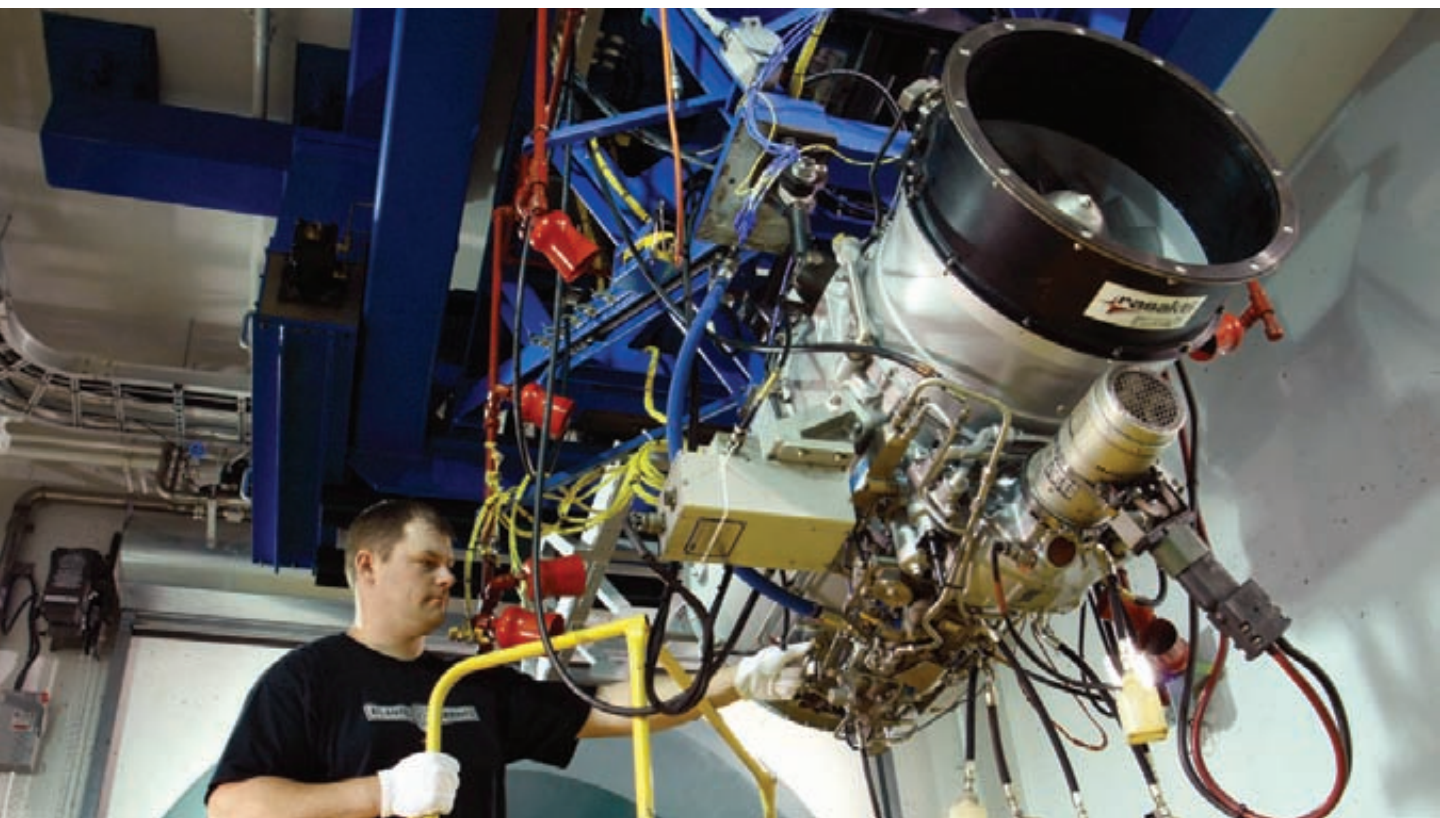
Vector Aerospace is a provider of maintenance, repair and overhaul (MRO) services for fixed wing and rotary wing aircraft operators.

Marine Exhaust Solutions specializes in research, development and commercialization of an exhaust gas scrubbing technology for marine diesel engines, called the MES EcoSilencer®.

Apex Industries Inc. produces precision parts for major clients in the aerospace and defense industries. APEX is developing production techniques for high-velocity machining of monolithic structures for aircraft and defense applications.

Pulse Learning provides Global 2000 clients with fully integrated learning solutions that measurably improve their revenue, cost, time-to-market, and quality metrics. Pulse Learning designs, develops and implements learning solutions such as content creation and conversion, learning technologies and professional services.

CarteNav Solutions Inc. is an international leader in situational awareness solutions such as surveillance, telematics, moving maps and systems integration.





VMT (Virtual Marine Technology) specializes in simulation-assisted performance assurance for small boat operators. VMT helps reduce risk to mariners through simulation and computer-based training, on-water expert training, and team performance management.

Marport is responsible for the design and development of Software Defined Sonar—a broadband, multimode sonar technology platform that uses reprogrammable digital signal processors to provide the features needed for next generation underwater sensing, surveillance and communications. Marport's product portfolio also includes wireless sensors, sounders, sonars, doppler current and sub-bottom profilers, acoustic monitoring devices, underwater modems, subsea positioning systems, autonomous underwater vehicle/payloads and visualization software.

Rutter Inc. is a global enterprise that delivers 21st century technologies and engineering solutions that improve security, safety and efficiency of operations worldwide.

Martec is a leading Canadian engineering firm specializing in advanced engineering simulation technology for the design and analysis of complex structures and systems, such as aircraft, ships, armoured vehicles, ports and harbours, and offshore structures.

Ultra Electronics Maritime Systems specializes in the design, manufacture and support for electronic and electromechanical systems, sub-systems and products for defence, security and aerospace applications worldwide.

ATLANTIC CANADA'S COST ADVANTAGE

Per cent cost advantage relative to the United States.
(Includes 95 featured cities and 33 additional sponsored cities.)

CHARLOTTETOWN, PE	8.3%
HALIFAX, NS	7.8%
MONCTON, NB	8.9%
PICTOU, NS	10.1%
ST. JOHN'S, NL	5.7%
SYDNEY, NS	7.8%
TRURO, NS	10.6%

SOURCE: *Competitive Alternatives: KPMG's Guide to International Business Location, 2008 Edition.*

Atlantic Canadian firms continuously focus on improvement of quality. Most companies are either ISO or AS certified, and many certified by Transport Canada, the FAA and the JAA.

AEROSPACE BUSINESS PARKS IN ATLANTIC CANADA

- Slemon Park Corporation
Aviation, Aerospace and Training Facilities
Summerside, PEI
- Aerotech Business Park
Halifax, NS
- Fredericton Aerospace
Defence and Business Park
Fredericton, NB
- Canada East Aerospace and
Technology Park
Dieppe, NB

Partnerships at work

A supportive business environment, coupled with world-class research infrastructure, fuels the continued growth of Atlantic Canada's aerospace and defence industry

Supported by progressive industry associations and all three levels of government, Atlantic Canada's aerospace and defence industry enthusiastically welcomes new firms and international partners from around the world.

The Government of Canada supports the aerospace and defence industry by facilitating international business development and trade; promoting the industry for foreign investments; and coordinating research and development programs and their financial incentives.

The Atlantic Alliance of Aerospace and Defence Associations (AAADA) is a regional organization representing the interests of aerospace, defence, marine and security companies in Atlantic Canada. The AAADA focuses on growing the aerospace and defence sector by building innovative national and international partnerships and by helping its companies become leaders in the global marketplace.

RESEARCH AND DEVELOPMENT

Atlantic Canada's aerospace and defence industry also devotes considerable resources to research and development, which is supported by all levels of government, academia and the private sector, through a broad infrastructure of research facilities. This intricate R&D infrastructure, combined with some of the lowest after-tax R&D costs in the world, creates an ideal environment for fostering innovative technologies.

The **National Research Council (NRC)** is the Government of Canada's premier organization for research and development and has R&D facilities, industry partnerships, and innovation-to-commercialization offices throughout Atlantic Canada. The NRC provides financial and management support to innovative companies through its Industrial Research Assistance Program.

Defence R&D Canada - Atlantic (DRDC) is a branch of the Department of National Defence and is the leading Canadian centre in sonar technology and torpedo defence. The Centre is conducting naval platform research and development for torpedo detection and counter-measures. DRDC also supports the design, operation and maintenance of the Canadian Navy's ships and submarines.

Research and development efforts in Atlantic Canada are also greatly enhanced by the Atlantic Innovation Fund and the Business Development Program (BDP),

which are delivered by the **Atlantic Canada Opportunities Agency**. These programs support R&D projects and activities of the region's private sector and research institutions that lead to the development and commercialization of new products, processes or services.

The BDP is designed to help establish, expand or modernize businesses in Atlantic Canada. Businesses may be eligible for unsecured, interest-free loans for up to 75% of costs related to researching and developing new or improved products, services and processes.

The **Canada Revenue Agency** administers the Scientific Research and Experimental Development program, which provides investment tax credits of 20-35%. This program is designed to encourage Canadian businesses to conduct R&D in Canada that will lead to new, improved or technologically advanced products or processes.



Nothing But Blue Sky

Be part of the vibrant, growing Atlantic Canadian aerospace and defence industry

There you have it. Atlantic Canada's strategic location, low business costs, skilled and dedicated employees, robust infrastructure and supportive partners combine to ensure the region's continued growth and innovation in the aerospace and defence industry. International firms wanting to enter, or expand within, the North American market, need look no further than Atlantic Canada.

The opportunities are vast. The potential is great. Find out how you could benefit from Canada's *Atlantic Advantage*.

We Can Help Your Company Succeed In Atlantic Canada

The Atlantic Canada Opportunities Agency (ACOA) is the federal government agency responsible for helping to build economic development in the Atlantic provinces. Tapping into a variety of programs and services, ACOA ensures that companies looking to locate in Atlantic Canada have access to a range of practical support to help them successfully develop their businesses.

www.acoa-apeca.gc.ca/invest

At ACOA, we believe that a healthy environment is essential to the development of a strong, growing and sustainable economy. We are committed to protecting the environment of this region by promoting sustainable businesses and communities in Atlantic Canada and by setting an example in the environmental management of ACOA's own operations.

Atlantic Canada Opportunities Agency

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