

---

---

**Labour Market Analysis for the  
Nova Scotia Aerospace and Defence Industry**

Nova Scotia Department of Labour and Workforce Development

April 2009

---

---

## Table of Contents

<b>1. Introduction</b> .....	3
<b>2. Background</b> .....	3
<b>3. Methodology and Considerations</b> .....	4
<b>4. Results and Analysis</b> .....	4
<b>4.1 Employment in Aerospace and Defence</b> .....	4
<b>4.2 Recommended Messages</b> .....	5
<b>4.3 Sub-Sector Analysis</b> .....	5
<b>4.4 Occupational Analysis</b> .....	6
<b>4.5 Education Data</b> .....	7
<b>5. Moving Forward</b> .....	8
<b>Appendices</b> .....	9
<b>A. Further Methodological Considerations</b> .....	9
<b>B. Aerospace and Defence Media Releases, 2008-2009</b> .....	10
<b>C. Additional Figures</b> .....	13

## 1. Introduction

The aerospace and defence sector in Nova Scotia has a long, successful history as a leader in producing high quality, innovative aviation products and services. The sector is comprised of businesses that design, manufacture and assemble parts for commercial and government customers within the province and worldwide. The industry is growing in size and offers ample opportunities for rewarding careers in well paying jobs.

Along with growth in the commercial sector, the aerospace and defence industry benefits from government expenditures on national defence. These contracts can involve the maintenance, repair and overhaul of helicopters and aircrafts and the design and integration of new systems, components and software. The Federal Government's commitment to modernize the Halifax-class frigates will generate significant contracts and employment activity over the next several years. For example, Lockheed Martin recently revealed plans to upgrade command and control systems that will create up to 100 jobs.

The aerospace and defence sector is very knowledge-intensive, as a large percentage of those working in the sector are professionals, managers, technicians and trades workers. As such, the sector relies on its strong relationships with research and development facilities and educational institutions such as the Nova Scotia Community College (NSCC) and local universities. The NSCC recently began offering an Aircraft Maintenance Engineer (Structures) program in response to industry's growing need for highly skilled workers.

## 2. Background

The Aerospace and Defence Human Resource Partnership (HRP) is hosting a Workforce Strategy and Career Forum on April 29-30 in Halifax. The HRP is seeking up-to-date labour market information (LMI) on their sector to support presentation content and messaging at the forum.

In February 2009, the HRP engaged the Nova Scotia of Department of Labour and Workforce Development (LWD) regarding the production of labour market information and analysis for their sector. At an initial meeting, both parties acknowledged there is a lack of current, relevant quantitative information on the aerospace and defence sector in Nova Scotia. The 2004 *Baseline Survey of the Nova Scotia Aerospace sector* and the 2005 *Aerospace and Defence Industry HR Analysis* are the most recent sources providing detailed quantitative labour market information. However, this information is viewed as out-dated and no longer relevant, especially given the current economic climate. A more recent initiative, involving industry, the NSCC and LWD, produced a report titled *Understanding the Workforce Development Needs of the Aerospace Industry (2008)*. This research identifies the core competency requirements of employers and outlines a high level concept for programming to offered through the NSCC to meet the needs of local industry. Some labour market information is contained in that report, but it was not the focus of the research.

### **3. Methodology and Considerations**

Given the short time frame leading up to the Forum, the Department of Labour and Workforce Development and the HR Partnership agreed it would not be possible to carry out a comprehensive study similar to previous efforts. Therefore, the information contained in this report pulls together existing data sources, but falls short of presenting a comprehensive current view and outlook for aerospace and defence workforce dynamics.

A meeting was held in mid-March inviting technical experts from the Department of Labour and Workforce Development, Department of Finance, Economic and Rural Development, Nova Scotia Business Incorporated, Department of National Defence and Service Canada. This group reviewed the options available and came to a consensus on what information is relevant and prudent to provide the HR Partnership within the time allotted, and what needs to be done in the future to ensure better information for this important sector. Further discussion on the methodological considerations is presented in Appendix A.

### **4. Results and Analysis**

#### **4.1 Employment in Aerospace and Defence**

The September 2008 report, *Understanding the Workforce Development Needs of the Aerospace Industry*, defines the aerospace sector in Nova Scotia as “firms that design, manufacture and assemble, and provide after-market services for aerospace and auxiliary products to commercial and government clients worldwide.” Based on this definition, the 2008 report states that the aerospace sector in Nova Scotia employs 6,000 workers. Furthermore, member companies of ADIANS that have advanced production workers employ a total workforce of 2,951 individuals, which includes those not directly involved in production.<sup>1</sup> Of this workforce, 2,250 are employed at companies focusing solely on the aerospace and defence sector. The vast majority (88%) of employees work in firms that specialize in manufacturing or maintenance.

Maritime Forces Atlantic (MARLANT) employs around 2,700 civilians. Of these, 1,200 are tradespersons and 900 work at the Cape Scott facility (i.e., Halifax Dockyard); these numbers are not included in the 2,951 presented in the 2008 report.

As reported through media releases, a total of 80 new jobs were created in aerospace and defence related companies in Nova Scotia in 2008. To date in 2009, 94 new jobs have either been created or will be created this year. Expectations for job openings in the future are promising given the extent of long-term contracts and ageing of the workforce; through 2008 and 2009, companies announced plans to create a total of 515 jobs over the next five years. However, the economic recession appears to be having some impact on the demand for aerospace and defence products and services. The impact

---

<sup>1</sup> These numbers were provided by ADIANS for the 2008 Report and represent only the member companies with advanced production workers (i.e., core companies).

at this point has not been overly significant; 15 employees were recently laid off, and some companies are postponing hiring. A full list of recent media releases for the aerospace and defence sector is presented in Appendix B.

## 4.2 Recommended Messages

The HR Partnership is looking for labour market information to support presentation content and messaging at their upcoming Workforce Strategy and Career Forum. Based on the information and analysis within in this report, the following highlights may serve as relevant, useful quotations.

- 11 of the 69 high opportunity occupations in Nova Scotia work in aerospace and defence.
- 2,200 jobs are expected to open over the next 5 years in Nova Scotia due to growth and retirements in occupations related to the aerospace and defence sector.
- Employment in Aerospace Product and Parts Manufacturing has grown 30% over the last 5 years in Nova Scotia.

## 4.3 Sub-Sector Analysis

Statistics Canada’s *Survey of Employment, Payroll and Hours (SEPH)* reports employment in the aerospace product and parts manufacturing industry (NAICS 3364) at 1,945 in 2008, up 170 (+9.6%) from 2007.<sup>2</sup> In addition, employment is up substantially for this industry group compared to five years ago, adding 500 workers (+30%). This is a movement in the opposite direction as overall manufacturing employment in Nova Scotia, which has declined by over 5,000 (-13%) since 2003.

Figure 1: Industry Employment (NAICS)		Year			
		1998	2003	2007	2008
Canada	Manufacturing, total	1,906,843	1,907,736	1,758,769	1,673,904
	Aerospace product and parts manufacturing	44,266	42,242	42,617	42,471
Nova Scotia	Manufacturing, total	42,162	39,314	33,533	34,285
	Aerospace product and parts manufacturing	1,613	1,446	1,775	1,945

Source: Statistics Canada, SEPH

Statistics Canada’s Census reports labour statistics at a more detailed level than often available in the SEPH and Labour Force Survey (LFS). Estimates of labour force for a sample of industry groups relevant to the aerospace and defence sector in Nova Scotia are included in Figure 2 on page 5. The data indicate that the labour force in most manufacturing and maintenance industries has grown over the five-year period – in some cases, the growth was significant. Strong growth occurred in plastic product, fabricated metal product, communications equipment, and semiconductor and other electronics component manufacturing industries. The computer and electronic component manufacturing industry, as a whole, experienced a 10.3% decrease in the labour force in

<sup>2</sup> The SEPH reports employment by industry based on administrative payroll sources, essentially a census of employers, which permits reporting of industry data at a more detailed level than sources such as the Labour Force Survey. Note, NAICS stands for North American Industry Classification System.

the period; however, a more detailed analysis shows that these losses were concentrated in the computer and peripheral equipment (3341) and navigational, measuring, medical and control instruments manufacturing industries (3345), and the manufacturing and reproducing magnetic and optical media industry (3346).

<b>Figure 2: Industry Labour Force (NAICS)</b>	<b>2001</b>	<b>2006</b>	<b>Change</b>
3261 Plastic product manufacturing	1,245	1,590	27.7%
332 Fabricated metal product manufacturing	2,300	2,665	15.9%
334 Computer and electronic product manufacturing	1,310	1,175	-10.3%
3342 Communications equipment manufacturing	125	300	140.0%
3344 Semiconductor and other electronic component manufacturing	250	280	12.0%
3345 Navigational, measuring, medical and control instruments manu	795	515	-35.2%
3364 Aerospace product and parts manufacturing	1,545	1,555	0.6%
4881 Support activities for air transportation	615	590	-4.1%
8112 Electronic and precision equipment repair and maintenance	325	355	9.2%
<b>TOTAL</b>	<b>7,340</b>	<b>7,930</b>	<b>8.0%</b>

Source: Statistics Canada, Census 2001 & 2006

As shown in Figure 2, the aerospace product and parts manufacturing industry (3364) experienced no significant change in its labour force over the last Census period. However, the SEPH reports some growth in the sector since 2006 (Figure 1). Detailed statistics for aerospace product and parts manufacturing (NAICS 3364) from the Census 2006 are presented in Appendix C, Figures 5-7.

Overall, the labour force for the above (aerospace and defence-related) industries grew 590 (+8.0%) over the five-year Census period. This compares favourably with the 5.5% increase in the labour force for all industries in Nova Scotia in the same period.

#### **4.4 Occupational Analysis**

The previously mentioned studies contain statistics on occupational characteristics for the aerospace and defence sector in Nova Scotia, capturing demographics, hiring difficulty, wages, retirements, etc. This information was collected primarily through employer surveys, which offered many valuable insights at the time. Unfortunately, this information is now out-dated and not worthy of re-publishing. The occupational information presented in this report is based on the Canadian Occupational Projection System (COPS), which is produced annually as a partnership between the Nova Scotia Department of Labour and Workforce Development and Service Canada. Figure 8 in Appendix C contains labour market information for 36 occupations related to the sector. The table contains estimates of employment, employment growth and attrition for the period of 2008 to 2013 (keep in mind the information reflects the conditions across all industries, not just aerospace and defence).

Twenty-six of the thirty-six occupations listed in Figure 8 are expected to grow at a rate exceeding the average provincial occupational growth rate over 2008-2013. Professional engineering occupations related to aerospace and defence are expected to grow well above the provincial average (Electrical and Electronics Engineers (+40),

Aerospace Engineers (+30), Computer Engineers (+20) and Software Engineers and Designers (+40)). Related technical occupations and IT occupations, including Information Systems Analysts and Consultants, will also grow over the next 5 years in Nova Scotia.

The industries employing the 36 occupations listed in Figure 8 will generate demand for 2,200 additional workers over the next 5 years, 660 from new growth and 1,550 to replace those retiring. At a broader occupational level, Professional Occupations in Natural and Applied Sciences (NOC 21) will require almost 1,500 additional workers within the next 5 years to meet new demand and replace those retiring. Similarly, Technical Occupations in Natural and Applied Sciences (NOC 22) will require almost 2,000 additional workers. The provincial workforce for Trades & Skilled Transport & Equipment Operators (NOC 72-73) will be impacted by significant retirements over the coming years. Although the outlook for employment for this group is negative (-500), largely due to the outlook for the construction sector, the need to replace 4,200 retired workers will still generate significant employment opportunities for those entering the skilled trades.

Only 4 of the 36 occupations are expected to decline in employment. Drafting technologists and technicians (-16), industrial electricians (-6), deck crew, water transportation (-49), and engine room crew, water transportation (-3) are each expected to employ fewer workers in 2013 than in 2008. However, retirements will still create job openings for most occupations, even those not growing in size.

#### 4.5 Education Data

The aerospace and defence sector competes with many other sectors for a limited supply of labour. Figure 3 shows 1,528 undergraduates and 391 graduates were enrolled in engineering and applied science programs at universities in Nova Scotia in 2007. In the same academic year, these universities granted 576 undergraduate degrees and 106 graduate degrees.

University	2007 Enrolment		2007/08 Degrees Granted	
	Undergraduate	Graduate	Undergraduate	Graduate
Acadia	42	-	30	-
CBU	139	-	51	-
Dalhousie	1,121	391	439	106
MSVU	-	-	-	-
SMU	148	-	33	-
St. FX	78	-	23	-
<b>Total</b>	<b>1,528</b>	<b>391</b>	<b>576</b>	<b>106</b>

Source: MPHEC, [www.mphec.ca](http://www.mphec.ca)

Figure 4 shows the NSCC had enrolment of 1,902 in 2008 and graduated 1,027 in 2007/08 from programs related to technical occupations in natural and applied sciences.

<b>Figure 4: NSCC Program</b>	<b>2008 Enrolment</b>	<b>2007/08 Credentials Granted</b>
Business Administration	371	178
Aircraft Maintenance Engineer	78	37
Other Engineering Trades	429	194
Welding	222	117
Electrician Programs	296	216
Machining/Mechanical	131	72
Metal Fabrication	19	12
Pipe.Steam Fitting Trades	117	65
Heavy Duty Equipment	239	136
<b>Total</b>	<b>1,902</b>	<b>1,027</b>

Source: MPHEC, [www.mphec.ca](http://www.mphec.ca)

## 5. Moving Forward

This report pulls together relevant labour market information for the aerospace and defence sector in Nova Scotia from a range of sources. It also attempts to build understanding and clarity around the measurement issues facing the sector.

The economic reality of the recession has created uncertainty around future demand for services and human resource requirements. For that reason, the information collected in previous studies on job creation expectations holds little value in today's climate; they are generally viewed as no longer relevant. Furthermore, carrying out an employer survey to collect new information given the extent of uncertainty in the labour market would not be worthwhile; the reliability and applicability of the information would be questionable.

Without a source of relevant current and historical data representative of the entire sector, and without any new company-level information, the task of projecting future employment is at best speculative. **For that reason, and upon the recommendation of the expert group, the Department of Labour and Workforce Development is extending their commitment to work with the Aerospace and Defence industry over the coming fiscal year to ensure the necessary research, data collection and analysis takes place to provide the best workforce information possible for their industry.**

## **Appendix A – Further Methodological Considerations**

There are a number of sources and approaches commonly used to estimate and project industry employment. Unfortunately, options for data that are available to other industries are not available, or relevant, to the aerospace and defence sector largely due to lack of definitional clarity and incompatibility with the North American Industry Classification System (NAICS). Much of the data produced for Nova Scotia are fragmented across sources and over time, making the task of projecting future employment for the overall sector very difficult. These issues present a challenge given industry and governments are seeking rigorous, valid numbers to support their HR planning, promotion and analysis.

The most significant challenge relates to the incompatibility of the aerospace and defence sector with the NAICS. This measurement issue explains the lack of current and historical data on the sector – a problem that does not exist for industries such as construction and healthcare that are well defined. Given the wide application of the NAICS, the most commonly relied on data sources for industry information (the Labour Force Survey (LFS), the Survey of Payroll, Employment and Hours (SEPH) and the Census) do not produce information specific to the aerospace and defence sector. The reason for the incongruence relates the functioning of the industry – driven mainly by purchasing contracts that result in considerable outsourcing of services across a network of companies. These circumstances spread the employment impact of aerospace and defence across industry clusters including Plastic Product Manufacturing (3261), Computer and Electronic Product Manufacturing (334), Aerospace Product and Parts Manufacturing (3364), Professional, Scientific and Technical Services (54), Other Support Activities for Air Transportation (48819), Repair and Maintenance (811) and Defence Services (9111).

The Canadian Occupational Projection System (COPS) is a model that produces employment estimates and 5-year projections for 33 industries and 520 occupations in Nova Scotia – a partnership between Service Canada and LWD. However, again due to the NAICS issue mentioned above, COPS does not produce information specific to the aerospace and defence sector. However, COPS does produce projections for employment and attrition for occupations (e.g., Mechanical Engineers) that work in industries servicing aerospace and defence contracts.

In the past, industry and other stakeholders have relied on custom research and analysis, with an employer survey component, to provide detailed information on workforce demographics, human resource issues and future conditions for the sector in Nova Scotia. This approach has proven to be successful given the breadth of information that has been collected in the past and the relevance of this information to the sector. Although this approach overcomes the NAICS definitional issue, it presents a new measurement challenge in that companies servicing the sector may also be servicing non-aerospace and defence contracts. In other words, the marginal employment impact on those companies is more relevant than total company employment. Although this issue has not been explicitly accounted for in previous efforts, future efforts should focus on definitional standards and marginal employment impacts.

## **Appendix B – Aerospace & Defence Media Releases, 2008-2009**

**Advanced Precision Ltd.** became the first machine shop in Nova Scotia certified to do contract manufacturing directly for aerospace companies. The eight-year old company has gone from employing 20 staff to nearly 100 employees working 24 hours, seven days a week. The Chronicle Herald, 06 January 2008.

Delays in the production of Boeing's new 787 Dreamliner aircraft forced **EADS Composites Atlantic to lay off 15 workers** at its Lunenburg facility. The company, which had 450 employees before the layoff, has a contract to make engine struts and air ducts, and other interior parts for the aircraft. EADS manufactures carbon fibre and matrix resin components for a wide range of aerospace companies. Bridgewater Bulletin, 25 March 2008.

**Pratt and Whitney Canada**, with assistance from the Nova Scotia government, will invest in a new engine centre that will assemble and test turbofan engines. The new assembly line, expected to begin in late 2009, will create 25 jobs and result in advanced training for other employees. The Chronicle Herald, 27 March 2008.

**IMP Aerospace** ([www.impgroup.com](http://www.impgroup.com)) of Halifax has won a four-year contract to upgrade six Norwegian P-3 military aircraft. IMP currently provides support for Canada's fleet of cormorant helicopters, Sea King helicopters, and P-3 Auroras. The Chronicle Herald, 05 April 2008.

**Composites Atlantic received a \$1 million government loan** to cover up-front costs associated with production of a redesigned diagonal brace being manufactured for Boeing's 787 Dreamliner program. The one year, interest-bearing repayable loan is from the province's Industrial Expansion Fund. The redesigned brace supports the engine to the main body of the aircraft, incorporates limited metal, resulting in a lighter and more fuel-efficient product. Bridgewater Bulletin, 13 May 2008.

**Composite Seat to Sky Ltd.** will be leasing space in the former Orenda airplane hangar in Debert beginning in September. It will manufacture and export ventilation equipment for the aerospace, defence and commercial industries. There is \$4.5 million in provincial money involved in the deal, including a \$2.9 million loan and a \$1.6 million training incentive. The new company was formed through a partnership between Bartlett Plastic and Precision Machining Ltd. and MipNet, which manufactures aircraft equipment in France. Only 50 of the new jobs will be created at the beginning with expectations of creating up to 200 jobs in five years. The loan will be used to help provide equipment for the startup and is repayable, with interest, over 10 years. The training incentive is payable based on job creation targets. Truro Daily News, 03 July 2008.

Lunenburg-based **EADS Composites Atlantic Limited** is one of 18 Atlantic Canadian companies sending representatives to the 2008 Farnborough International Air Show in London, England. The 2006 Air Show attracted 270,000 visitors and resulted in \$40 billion (US) in orders. The Minister of Defence is hopeful that the investment will help

promote Atlantic Canadian aerospace and defence businesses to an international audience. The aerospace and defence industry in Atlantic Canada employs over 10,000 workers. Bridgewater Bulletin, 15 July 2008.

The new facility in Cole Harbour built by Millbrook First Nation and leased for 17 years to **General Dynamics Canada** has officially opened. General Dynamics provides software support and systems integration for the federal government's Maritime Helicopter Project and will do the same for a variety of other programs. About 30 General Dynamics employees work at the facility, and the number is expected to grow during the next 18 months. The Chronicle Herald, 06 September 2008.

**Xperion**, a German company, announced that they will construct a new **\$2 million factory at the Yarmouth airport to make high-end composite parts** for the aerospace industry. Yarmouth's proximity to the American market and direct access to the airport's runway were the deciding factors for setting up in Yarmouth. The five-year outlook for the Yarmouth operation calls for 15 jobs when the plant opens in June 2009, with potential growth to 200 jobs within five years. NSCC Burrigge Campus will train the initial employees. Yarmouth Vanguard, 30 September 2008.

**Lockheed Martin Canada** ([www.lockheedmartin.com/canada](http://www.lockheedmartin.com/canada)) has been awarded two contracts by the federal government, to last between eight and 16 years, as part of the plan to modernize Canada's 12 Halifax-class frigates. The company will hire about 75 software and systems engineers (a mix of recent university graduates and experienced managers) over the next year to work in Dartmouth on systems integrations and in-service support. Other companies, including Saab systems, xwave, IBM Canada, L-3 Electronic Systems, and CAE Professional Services, will work with Lockheed Martin. The Chronicle Herald, 11 November 2008.

The German aerospace company which planned to build a plant in Yarmouth has **postponed the start of the plant for 9 to 12 months** due to the global financial crisis. **Xperion** had stated it would construct a plant at the airport site making components for the aerospace industry. The plant was to initially employ 15 people and increase to 200 people over the next few years. Yarmouth Vanguard, 09 December 2008.

**Cougar Helicopters** ([www.cougar.ca](http://www.cougar.ca)) of St. John's, Nfld. has won a 10 year contract with Encana Corp. to support the Deep Panuke gas project. The company will begin operating out of Halifax by May 1, 2009, and will involve one aircraft and 23 jobs, including flight crews, engineers, and support staff. There are other offshore projects planned that could generate work for Cougar as well. The Chronicle Herald, 02 January 2009.

**IMP** ([www.impgroup.com](http://www.impgroup.com)) of Halifax continues to be busy. The company will soon begin a two to two and a half year project to replace wings on six Norwegian Air Force P-3 aircraft, and has finalized the agreement to do wing replacements on the Canadian government's fleet of CP-140s Auroras. IMP is recruiting world wide for skilled people. The Chronicle Herald, 15 January 2009.

**Michelin** was awarded a tire contract worth \$16.7 million to make tires for 1,300 new Canadian Forces trucks. The trucks will be manufactured in Texas with many parts sourced in Canada. Delivery of the trucks will begin this summer and all 1,300 are expected to be ready within 18 months. Bridgewater Bulletin, 20 January 2009.

**Starlink Aviation**, a Montreal-based company, announced that they will offer an air shuttle service between Yarmouth, Portland, Maine and Halifax. The daily, round-trip service is expected to start in early February, with the aircraft, an 18-seat Jetstream 31, based in Yarmouth. The company stated that they are in a one-year agreement that will be evaluated on a month-to-month basis but the province has committed \$2 million to the service over the next five years as a line of credit. The company is in the process of hiring pilots, flight attendants and ground agents, approximately 10 jobs in the three markets. Yarmouth Vanguard, 27 January 2009.

**Mil-Aero Electronics Atlantic Inc**, manufacturer of high-performance electrical components, expects to hire five or six people by the end of February. According to the founder of the company there is still a lot of activity in their sector. Mil-Aero currently employs 24 people. The Chronicle Herald, 06 February 2009.

**Nautel Ltd.** hired 30 new workers to keep up with growing demand for its products. The company, which employs about 165 people ranging from engineers to assembly workers, recently added \$1 million in new manufacturing equipment and has seen its revenues go up about 20 percent. The Chronicle Herald, 13 February 2009.

## Appendix C – Additional Figures

**Figure 5: Labour Force Statistics**  
**Industry: 3364 Aerospace product and parts manufacturing**

	Total	Male	Female
Total labour force, Ages 15 and over	1,555	1,275	275
15 to 34 years	390	315	80
35 to 54 years	1,025	850	185
55 years and over	130	110	15
Immigrants share of the labour force	6.8%	7.1%	5.5%
Unemployment Rate	2.6%	2.7%	3.6%
Median employment income, full year full time workers	\$ 45,933	\$ 50,146	\$ 29,408

Source: Statistics Canada, Census 2006

**Figure 6: Educational Attainment**  
**Industry: 3364 Aerospace product and parts manufacturing**

	Total	%
Total labour force	1555	100%
No certificate, diploma or degree	115	7.4%
High school certificate or equivalent	305	19.6%
Apprenticeship or trades certificate or diploma	320	20.6%
College, CEGEP or other non-university certificate or diploma	510	32.8%
University certificate, diploma, or degree	310	19.9%

Source: Statistics Canada, Census 2006

**Figure 7: Major Occupation Groups**  
**Industry: 3364 Aerospace product and parts manufacturing**

	Total	%
Total labour force	1555	100%
Management occupations	95	6.1%
Business, finance and administrative occupations	250	16.1%
Natural and applied sciences and related occupations	390	25.1%
<i>Professional occupations in natural and applied sciences</i>	150	9.6%
<i>Technical occupations related to natural and applied sciences</i>	240	15.4%
Trades, transport and equipment operators and related occupations	360	23.2%
<i>Machinists, metal forming, shaping and erecting occupations</i>	145	9.3%
<i>Mechanics</i>	150	9.6%
Occupations unique to processing, manufacturing and utilities	390	25.1%
<i>Assemblers in manufacturing</i>	265	17.0%

Source: Statistics Canada, Census 2006

**Figure 8: (All Sector) Occupational Outlook for Aerospace and Defence-related Occupations**

<b>4-Digit NOC Occupations</b>		<b>Employment 2008</b>	<b>Growth 2008-13</b>	<b>Attrition 5- Yr</b>
2132	Mechanical Engineers	600	0	60
2133	Electrical & Electronics Engineers	600	40	60
2141	Industrial & Manufacturing Engineers	210	20	<25
2146	Aerospace Engineers	200	30	<25
2147	Computer Engineers	230	20	<25
2171	Information Systems Analysts and Consultants	1,840	170	80
2173	Software Engineers and Designers	310	40	<25
2232	Mechanical Engineers Technologists & Technicians	460	40	60
2233	Industrial Engineering and Manufacturing Technologists & Technicians	220	20	30
2241	Electrical and Electronics Engineering Technologists and Technicians	900	30	90
2243	Industrial Instrument Technicians and Mechanics	120	0	<25
2244	Aircraft Instrument, Electrical and Avionics Mechanics, Techs & Insprts	480	40	50
2253	Drafting Technologists and Technicians	550	-20	50
2255	Mapping & Related Technologists and Technicians	170	0	<25
2261	Non-Destructive Testers and Inspectors	160	0	<25
2262	Engineering Inspectors and Regulatory Officers	200	10	30
2271	Air Pilots, Flight Engineers and Flying Instructors	600	20	70
7211	Supervisors, Machinists and Related Occupations	230	0	30
7231	Machinists and Machining and Tooling Inspectors	930	20	90
7232	Tool & Die Makers	70	0	<25
7242	Industrial Electricians	680	0	90
7265	Welders and Related Machine Operators	2,020	20	170
7315	Aircraft Mechanics & Inspectors	530	20	80
7316	Machine Fitters	150	0	<25
7433	Deck Crew, Water Transport	510	-50	50
7434	Engine Room Crew, Water Transport	120	0	<25
9214	Supervisors, Plastic and Rubber Products Manufacturing	350	10	60
9222	Supers-Electrs Manu.	70	0	<25
9422	Supervisors, Electronics Manufacturing	460	20	40
9481	Aircraft Assemblers and Aircraft Assembly Inspectors	470	70	60
9483	Electronics Assemblers, Fabricators, Inspectors and Testers	400	20	50
9485	Assemblers, Fabricators and Inspectors, Industrial Electrical Motors	50	0	<25
9486	Mechanical Assemblers and Inspectors	130	0	<25
9495	Plastic Products Assemblers, Finishers and Inspectors	290	20	30
9511	Machining Tool Operators	140	20	<25
9514	Metalworking Machine Operators	270	30	30

Source: COPS, Service Canada and NS Dept. of Labour and Workforce Development

Note: Attrition reflects the sum of estimated deaths and retirements; estimates less than 25 have been suppressed