



Aerospace and Defence

Western Canada's Thriving Aerospace and Defence Sector

The abundance of natural resources that blanket Western Canada's vast landscape has always been crucial to the region's economic growth and prosperity. While these resources are a key economic driver, technological innovation in the aerospace and defence sectors play an important role in diversifying Western Canada's economic base.

Aerospace

Canada is the world's 5th largest aerospace producer and has seen significant growth in the last 20 years. In particular, the western Canadian aerospace industry has proven to be a competitive, vibrant and growing sector. Since April 1, 2006 Western Economic Diversification Canada (WD) has provided support to 48 projects related to the aerospace sector and leveraged an additional \$163.5 million from provincial governments, research institutions, and industry partners. WD's approach to strengthening the economy through our pan-western support for innovation, business development and trade and investment initiatives is contributing to success for this vital sector in the West.

Western Canada's success in aerospace is based on its regional companies' proven expertise and leadership in:

- Aircraft maintenance, repair and overhaul;
- Composites innovation;
- Unmanned vehicle systems;
- Avionics;
- Satellite communications and remote sensing; and
- Training and simulation.

Defence

Canada's defence industry reached \$12.6 billion in revenue in 2011, with \$6.4 billion generated from exports alone. With over 2000 Canadian firms, the sector directly or indirectly employs 109,000 Full Time Equivalent (FTE) workers in Canada and contributed \$9 billion to the national GDP.

Western Canada's defence industry is composed of a mixture of top tier suppliers, primarily western Canadian operations of international or Canadian defence companies, and a large base of small- and medium-sized enterprises. Many of which are active in both aerospace and defence, applying their technological expertise to both.

Canada's Aerospace Industry by the Numbers:

- Supports the employment of nearly 172,000 skilled professionals
- Recorded \$25.1 billion in sales in 2013, with 80% through exports

In the West:

- Supports the employment of 27,000 people
- Generates over \$3 billion in annual revenues
- Accounts for 41% of maintenance, repair, and overhaul services in Canada by GDP



Aerospace and Defence (continued)

The Western Canadian Advantage

Manitoba

Manitoba is home to the largest aerospace cluster in Western Canada and is a major centre in North America for composite aircraft components and aircraft maintenance, repair, and overhaul. Three world-class firms – Magellan Aerospace, Boeing Canada and StandardAero – are part of this group that directly employs 5,300 people. In addition, the province also boasts more than twenty established regional and national firms that specialize in tool and die making, precision sheet metal fabrication, plating and coating, and electronics. Many of these companies are also suppliers to the defence industry.

- StandardAero operates one of the world's largest independent small turbine engine repair and overhaul companies.
- Boeing Winnipeg, the largest aerospace composite manufacturer in Canada, designs, develops and fabricates complex composite structures and sub-assemblies.



Saskatchewan

Saskatchewan's expertise is in satellite-based communication system commodities for aerospace and defence industries in Canada and around the world. In addition, the province is home to numerous companies offering precision engineering and manufacturing solutions. Saskatchewan also facilitates the NATO Flying Training in Canada (NFTC) program.

- SED Systems is a leading provider of satellite communication systems for global clients, including Intelsat, Boeing, Hughes, Lockheed Martin, WorldSpace, the Canadian Space Agency and the European Space Agency.
- Award-winning Draganfly Innovations has developed several unmanned aerial vehicle systems that fulfill a variety of civilian and military functions.
- Scientific Instrumentation Limited specializes in the research and development of advanced sensor technology. Its engineers and technologists can take a project from conceptualization, through prototyping to full production.
- Saskatchewan's NFTC offers under-graduate and post-graduate advanced military jet pilot and tactical training. Canadian and NATO Qualified Flying Instructors (QFIs) provide flight training, while private industry performs aircraft maintenance and provides simulator and classroom instruction.



Aerospace and Defence (continued)

Alberta

At the core of Alberta's globally competitive aerospace and defence sectors are five key sub-sectors: robotics and unmanned vehicle systems; defence electronics; space sciences, geomatics, and navigation systems; maintenance, repair, and overhaul; and logistic support to the military.

- Field Aviation and 25 other Alberta firms provide skilled aircraft maintenance, repair and overhaul services for military and commercial aircraft, including: avionics, airframes, engines, equipment and component parts, interior/exterior refurbishing.
- Alberta is proud to host companies such as NovAtel, Keo Scientific, Iunctus, BlueSky, Hyperion, and Obsidian as examples of innovative high-tech solution providers for the defence and space industries.
- Meggitt Training Systems Canada offers advanced training solutions for military, law enforcement, and security agencies around the world.
- The Canadian Centre for Unmanned Vehicle Systems (CCUVS) is a national change agent whose purpose is to facilitate the sustained, profitable growth of national and international unmanned vehicle systems sector. CCUVS is engaged in several activities and delivers a range of services to achieve this goal.
- Lighter than Air, an emerging aerospace niche sector still in the R&D phase, but showing great potential as a heavy lift air vehicle with industrial and commercial applications.



British Columbia

British Columbia's global customer base spans the commercial aviation, defence and security, and space market segments and has demonstrated capabilities in component manufacturing, assemblies, sub-assemblies, machined parts, and systems. The province's network of high technology companies also provides a wealth of expertise in remote-sensing, satellite communications, complex robotics, 3-D simulation technology, and advanced aerospace systems and sub-systems.

- Cascade Aerospace, based in Abbotsford, is one of North America's top 10 maintenance, repair and overhaul organizations.
- Avcorp Industries in Delta is a leading supplier of primary and secondary flight structures, including stabilizers, flight control surfaces, fuselage components, and interior panel assemblies.
- MacDonald, Dettwiler and Associates Ltd. (MDA) is a space contractor with over 40 years of experience in the development of innovative space systems. The company delivers turnkey, fixed-price earth observation, space surveillance, space science, and information delivery satellite missions. Complementing its mission capability is its heritage in the design, development, and supply of spacecraft payloads and subsystems.
- Kelowna Flightcraft operates scheduled courier service aircraft, line stations across Canada, heavy maintenance facilities, and a military flight training facility on behalf of the Department of National Defence.