



# Aerospace and Defence

## Industry at a Glance

Alberta has a growing and dynamic aerospace and defence sector that is highly regarded for its capabilities in the global aerospace industry. The aerospace and defence industry in Alberta has strengths in five key sub-sectors:

- robotics and unmanned vehicle systems;
- defence electronics;
- aerospace based geomatics and scientific research;
- manufacturing, maintenance, repair, and overhaul; and
- logistic support to the military.

### Fast Facts

- Over 170 companies employing over 6000 skilled workers.
- Annual revenues over \$1.3 billion, with 40% of production destined to export markets.
- Home to the Canadian Centre for Unmanned Vehicle Systems (CCUVS).
- Alberta has a significant military presence with three immense instrumented weapons ranges.
- Universities have leading expertise in space science and close ties with the Canadian Space Agency DRDC Suffield is internationally recognized for its R&D in chemical/biological defence

## Areas of Expertise

### ⇒ Robotic and Unmanned Vehicle Systems (UVS)

- Alberta is emerging as Canada's leader in the development of unmanned vehicle systems (UVS). More than 70 Alberta companies, military agencies and educational institutions are working in various forms of UVS research, testing, development and manufacturing. Alberta companies have expertise in command & control systems, wireless communications, avionics, navigation systems, global positioning systems, remote sensing, nanotechnology and manufacturing.
- The Canadian Centre for Unmanned Vehicle Systems (CCUVS) headquartered in Medicine Hat, Alberta, is a national change agent that facilitates sustained profitable growth of the national and international UVS sector.

### ⇒ Logistic Support to the Military

Four significant military bases in Canada are located in Alberta:

- Canadian Forces Base (CFB) Edmonton is the headquarters for the Land Force Western Area, and Joint Task Force West.
- CFB Cold Lake is the Canadian premier fighter training facility, and home to the Aerospace Engineering Test Establishment (AETE), and the Canadian Flight Test Centre (CFTC).
- CFB Wainwright is the Canadian Army training centre for excellence.
- CFB Suffield is one of the largest military training areas in the world, and home to the Defence Research and Development Canada (DRDC) and the British Army Training Unit (BATUS).

Collectively, these bases bring more than \$10 million in local procurement of products and services to Alberta's economy. Alberta offers unique advantages and opportunities for defence companies: excellent flying weather; some of the best instrumented test ranges in the world; and a strong federal defence research and development capability. These bases are used for large scale manoeuvres by international militaries, and to train Canadian Forces before deployment.



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## ⇒ Aerospace based Geomatics and Scientific Research

- Alberta is home to over 25% of Canada's 1900 geomatics, navigation, and global positioning firms, exporting 60% of their wireless communications and sensor technology products to US and European markets.
- The University of Alberta has a national and international research profile in space research. Combined with the University of Lethbridge and the Space Research Institute at the University of Calgary, Alberta's expertise in space physics, instrumentation, imaging and materials is significant.
- The National Institute for Nanotechnology (NINT) is a world-class nanotechnology research centre at the University of Alberta.

## ⇒ Defence Electronics

- Alberta companies manufacture and provide maintenance for Canadian and foreign militaries in these areas: secure tactical communication systems, software, specialized sensors and other components in military applications.
- There are over 12 companies in this subsector.
- This niche generates \$264 million worth of products, 60% of which are exported.

## ⇒ Manufacturing, Maintenance, Repair and Overhaul (MMRO)

- Alberta is highly regarded for its capabilities in the MMRO sub-sector. Companies in this group provide comprehensive manufacturing, maintenance, repair overhaul and modification of military and commercial aircraft, including avionics, airframes, engines, equipment and component parts, interior and exterior refurbishment.

## ⇒ Niche Cluster Support

Apart from the five niche clusters identified above, Alberta has four other areas that are noteworthy in their direct support to the provincial Aerospace and Defence industry, but which cannot be classified as niche clusters in their own right.

- Aerospace Infrastructure
- Aerospace Education
- Training Capacity
- Alberta's Aerospace/Aviation Heritage



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## Research & Technology Commercialization

- Alberta's industry is supported by **world class research institutes** such as the Defence Research and Development Establishment at CFB Suffield; the National Institute for Nanotechnology (NINT) at the University of Alberta; the University of Calgary's Department of Geomatics Engineering; and TRILabs, a not-for-profit telecommunications research consortium.
- **Alberta Innovates – Technology Futures** is part of Alberta's research and innovation system, helping to build healthy, sustainable businesses in the province. Tech Futures offers programs and services for entrepreneurs, companies, researchers and investors by providing technical services and funding to support the commercialization of technologies, to develop knowledge-based industry clusters and to establish an entrepreneurial culture in Alberta.

## How we Can Help

The Alberta Government can provide your company with contacts and information on potential partnerships and investment opportunities. We can help you:

- Gain insight into the challenges and opportunities of the aerospace and defence sector in Alberta.
- Build strategic alliances and business networks with local and international partners.
- Facilitate introductions, support market entry, provide business information and competitive market intelligence.

## Industry Resources

Visit the Aerospace and Defence homepage at [www.albertacanada.com/aerospace](http://www.albertacanada.com/aerospace) to learn about:

- Industry facts and opportunities
- Policies and regulations
- Key stakeholders and industry associations
- News and events

## Contacts

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