

South Canterbury Aerospace Capability Prospectus

Together, our local businesses and organisations provide the capability to support the next generation of aerospace technologies.



Supported by the
Waitaha Canterbury Aerospace Strategy,
in partnership with



Venture Timaru
DISTRICT - ECONOMIC & TOURISM AGENCY

South Canterbury

A Century of Pioneering Flight. A Future in Aerospace.

For more than 120 years, South Canterbury has been a place where pioneers have challenged convention, tested new ideas and expanded the boundaries of flight.

Our journey began in the early 1900s with Waitohi farmer and inventor Richard Pearse, whose extraordinary engineering mind led him to design and build powered aircraft years before aviation was established. Whether or not his experiments pre-dated the Wright brothers remains the subject of international debate, but his pioneering spirit has inspired generations of aviators, engineers and innovators.

South Canterbury's unique landscape, airspace and pioneering spirit have long attracted ambitious aviators. In 1914, aviator James William Humphreys Scotland chose Timaru as the launch point for his attempt to complete New Zealand's longest flight between two points. Although forced to land near Orari to repair his aircraft, he successfully completed the journey to Christchurch later that day. During the flight, he also delivered what is widely recognised as New Zealand's first official air mail, marking another milestone in New Zealand's aviation history.

As aviation developed, so too did South Canterbury's expertise. Local pilot Ross Brodie became one of the first South Cantabrians to qualify through the Canterbury School of Aviation before establishing pilot training at Rangitata Aerodrome. More than a century later, the Brodie family's aviation legacy continues, with the aerodrome still operating and a third generation training pilots and maintaining aircraft.

Few individuals embodied South Canterbury's pioneering spirit more than Rodolph Wigley. Long before commercial aviation became a reality, he recognised the potential for aircraft to connect communities, carry passengers and mail, and unlock access to New Zealand's most remote landscapes. His vision for a nationwide air transport network led to the establishment of the New Zealand Aero Transport Company and South Canterbury's first aircraft hangar at Washdyke.

That vision extended into the Mackenzie Country, where he laid the foundations for alpine aviation that would later become recognised around the world. Building on that legacy, Harry Wigley pioneered ski-equipped aircraft operations, helping establish New Zealand as a world leader in mountain aviation and demonstrating how innovation could overcome some of the country's most challenging environments.

Today, South Canterbury is shaping the next generation of flight.

Local companies are designing, manufacturing and deploying advanced unmanned aerial systems that are creating impact on a global scale. SPS Automation is developing sophisticated UAV platforms locally, demonstrating the region's expertise in advanced automation and aerial technologies. Meanwhile, Timaru-based ProVision is applying leading-edge drone technologies to solve real-world challenges for governments, conservation agencies and environmental organisations around the world. Together, these businesses demonstrate how South Canterbury is developing advanced aerospace technologies and applying them in innovative ways to solve complex global challenges.

The same landscape that challenged early aviators now enables the next generation of aerospace innovation. Advanced manufacturers are producing precision-engineered components for international space research, while Glentanner and Lake Tekapo Aerodromes have been the flight-testing base for Dawn Aerospace's reusable Mk-II Aurora spaceplane, Google X Project Loon and Wisk. The region's uncongested and uncontrolled airspace, diverse terrain, engineering expertise and collaborative ecosystem provide an ideal environment for developing, testing and validating advanced aerospace technologies.

From the earliest powered flight experiments to autonomous drones, reusable spaceplane testing grounds and precision aerospace manufacturing, our region continues to provide the environment, expertise and pioneering mindset to help shape the future of flight.



Why South Canterbury for Aerospace?

Together, our local organisations provide the capability to support the next generation of aerospace technologies.

Whether you're developing a new concept, manufacturing components, validating systems or bringing products into operation, you'll find partners who can help move your innovation forward.

This prospectus is organised around the key stages of the aerospace innovation process. Each section highlights South Canterbury businesses with the expertise, technology and capability to support that stage of development.

Frontier

Design

Build

Test

Integrate

Operate

South Canterbury's Aerospace ecosystem delivers,

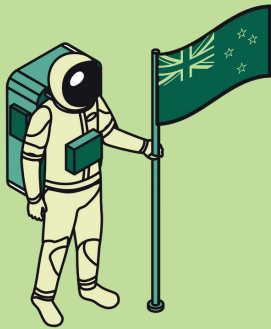


- ✓ Proven aviation operating environments
- ✓ Open skies and flexible airspace
- ✓ Diverse terrain for testing and specialist operations
- ✓ Advanced UAV and autonomous technology capability
- ✓ Precision machining and manufacturing
- ✓ Fabrication, composites and specialist engineering
- ✓ Automation, robotics and control systems
- ✓ Aviation maintenance and operational support
- ✓ Communications and infrastructure capability
- ✓ Engineering design and project expertise
- ✓ Skills development and workforce pathways
- ✓ A collaborative regional approach connected through the Waitaha Canterbury Aerospace Strategy

Find your local partner

Frontier

- **Commercial aerospace products and services**
- **Advanced UAV technologies and operations**
- **Aerospace engineering and automation**
- **Export-ready innovation and specialist expertise**



Leading aerospace from South Canterbury

South Canterbury is home to businesses already delivering advanced aerospace technologies and specialist services to both national and international markets.

Regional capability partners:

ProVision

Develops and deploys advanced UAV solutions for conservation, environmental management and government agencies, integrating commercial drone platforms to solve complex operational challenges around the world.

website provision.nz

SPS Automation

Designs and delivers advanced automation, robotics and UAV technologies, creating intelligent engineering solutions for emerging aerospace and industrial applications.

website spsautomation.com

Mainland Drones

Combines UAV technology with aircraft engineering expertise to deliver precision aerial services, aircraft maintenance and specialist drone operations across multiple industries.

website mainlanddrones.co.nz



ProVision is at the forefront of drone technology applications, delivering precise results in conservation, agriculture, and specialist aerial operations.

[See Provision in action](#)

Aerospace New Zealand described SPS Automation as one of New Zealand's "hidden aerospace gems", highlighting the company's contribution to the country's growing aerospace sector.

[Read the article](#)



Design

- **Mechanical design**
- **CAD modelling**
- **Prototype development**
- **Systems engineering**
- **Automation and control design**

Turning concepts into engineered solutions

South Canterbury combines practical engineering expertise with modern design capability to develop specialised aerospace solutions.

Regional capability partners:

Industrial Controls

Automation and control systems capability supporting complex industrial and aerospace applications. Industrial controls also have access/direct links to Electron Beam Melting (EBM) titanium additive manufacturing and 3D printing capability

website icsc.co.nz

ESRNZ

Electrical engineering, automation, robotics, simulation and integrated project delivery capability.

website esrnz.com

Build

- **Precision machining**
- **Fabrication**
- **Certified welding**
- **Sheet metal manufacturing**
- **Composite materials**
- **Bespoke components and assemblies**

Precision manufacturing and engineering expertise

South Canterbury's manufacturing sector provides decades of experience producing complex, made-to-spec solutions.

Regional capability partners:

MachineCraft

Precision machining, fabrication and component manufacturing supporting specialist aerospace and advanced technology applications.

website machinecraft.co.nz

Bleeker & Weith

Complex fabrication, precision machining and certified welding capability supporting high-quality engineered components.

website bleekerweith.co.nz

Fabtech Engineering Solutions

Structural fabrication, sheet metal, welding and custom manufacturing capability.

website fabtech.co.nz

Industrial Fibreglass Solutions

Composite manufacturing capability supporting lightweight, durable solutions.

website industrialfibreglass.co.nz

David Wright

Principal Engineer, Asteria Engineering

“The main things for us are transparency, communication, and determination from the manufacturer to find a good solution, and that's exactly what we found with **MachineCraft**”



Integrate

- **Robotics and automation**
- **Electrical systems**
- **Instrumentation**
- **Communications**
- **Hydraulics**
- **Operational infrastructure**

Connecting systems, technology and infrastructure

Modern aerospace requires integrated systems that combine hardware, software, communications and operational support.

Regional capability partners:

Scarlett Hydraulics

Hydraulic and pneumatics system design, manufacture and maintenance supporting specialist equipment.

website scarlett-hydraulics.co.nz

South Canterbury Hydraulics

High-pressure hydraulic systems and technical support capability.

website schydraulics.co.nz

Plunket Electrical

Electrical, instrumentation, data networks and facility systems.

website plunket-electrical.co.nz

Ashley Communications

Radio communications, GPS tracking and connectivity solutions supporting aviation safety and operations.

website ashcoms.co.nz

Test

- **Expansive airspace**
- **Low aviation congestion**
- **Diverse terrain**
- **Remote operating environments**
- **Specialist flight testing**
- **High-country and alpine conditions**

A proven environment for flight innovation

South Canterbury's geography has always been one of its greatest advantages. From open plains and coastline to alpine environments, the region provides a diverse and challenging environment for aviation testing.

Regional capability partners:

Glentanner Aerodrome

- Supported Dawn Aerospace's Mk-II Aurora reusable spaceplane testing
- Provides access to open airspace and varied terrain
- Enables advanced flight testing in a low-congestion environment

website glentanner.co.nz

Air Safaris

- Supported Google X Loon Project
- Provided testing support and purpose built temp controlled hanger.
- Regional aviation expertise supporting tourism, logistics and specialist flying operations.

website airsafaris.co.nz



Operate

- Aircraft operations
- Aviation maintenance
- Flight training
- Specialist operations
- Tourism and logistics aviation



Real-world aviation and aerospace expertise

South Canterbury has generations of aviation experience operating in diverse environments.

Regional capability partners:

Avtek Aviation Technology

Aircraft maintenance, engineering support and aviation technology services.

website avtek.co.nz

Rakitata Island Aerodrome

Provides aviation facilities and flexible operating environments for training, operations and future aerospace activities.

website realflying.co.nz

Richard Pearse Airport

A regional airport providing commercial and general aviation services, supporting passenger transport, business aviation, flight training and future opportunities for aerospace operations and industry growth.

website

timaru.govt.nz/community/facilities/airport

Pukaki Airport

A strategically located alpine airfield supporting tourism, flight operations, aerial work and providing access to the Mackenzie region's unique aerospace testing and operational environment

website airportpukaki.co.nz



Dawn Aerospace

Glentanner Aerodrome, Mount Cook

Glentanner Aerodrome has served as [Dawn Aerospace's flight-testing](#) base for the reusable Mk-II Aurora spaceplane, supporting rocket-powered aircraft trials in the Mackenzie region.

The tests assessed runway-based launch and landing operations, high-speed performance, rapid turnaround, payload capability, and the feasibility of reusable spaceplanes for research and future space access.





Wisk

Air Safaris, Lake Tekapo Aerodrome

Air Safaris supported autonomous aircraft testing undertaken by US aerospace companies Zephyr Airworks and Kitty Hawk, with the programme later becoming Wisk. The company provided a chase aircraft to support flight testing of large, fully autonomous, electric vertical take-off and landing (eVTOL) aircraft, while also providing purpose-built on-site infrastructure, including a climate-controlled hangar, high-voltage power and fibre connectivity.





Google X Project Loon Air Safaris, Lake Tekapo Aerodrome

In 2013, Air Safaris provided the base for a Google X team at its airport, providing hangar and launch space for [Project Loon's](#) high-altitude balloon trials over the Mackenzie region.

The trials assessed launch operations, signal performance, ground receiver connections, and the feasibility of using stratospheric balloons to provide internet connectivity to rural and remote users.

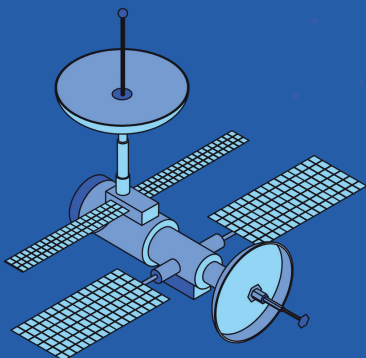
Building the ecosystem for aerospace success

South Canterbury is bringing together industry, education, infrastructure and investment to help create the conditions for long-term aerospace growth.

Through regional collaboration, strategic partnerships and capability development, we're ensuring businesses can participate today while preparing the workforce, infrastructure and networks needed for tomorrow.

Enable

- **Regional leadership and collaboration**
- **Strategic partnerships**
- **Infrastructure and investment**
- **Workforce and skills development**
- **Research and industry connections**



Regional capability partners:

Venture Timaru / Waitaha Canterbury Aerospace Strategy

Connecting South Canterbury businesses with Canterbury's aerospace ecosystem and supporting sector growth through collaboration and capability development.

website vtdevelopment.co.nz

Timaru District Holdings Limited

Investing in strategic infrastructure that supports future industry growth and innovation.

website tdhl.co.nz

Ara Institute of Canterbury

Developing the next generation of engineering, trades and technology talent.

website ara.ac.nz

Timaru District Council

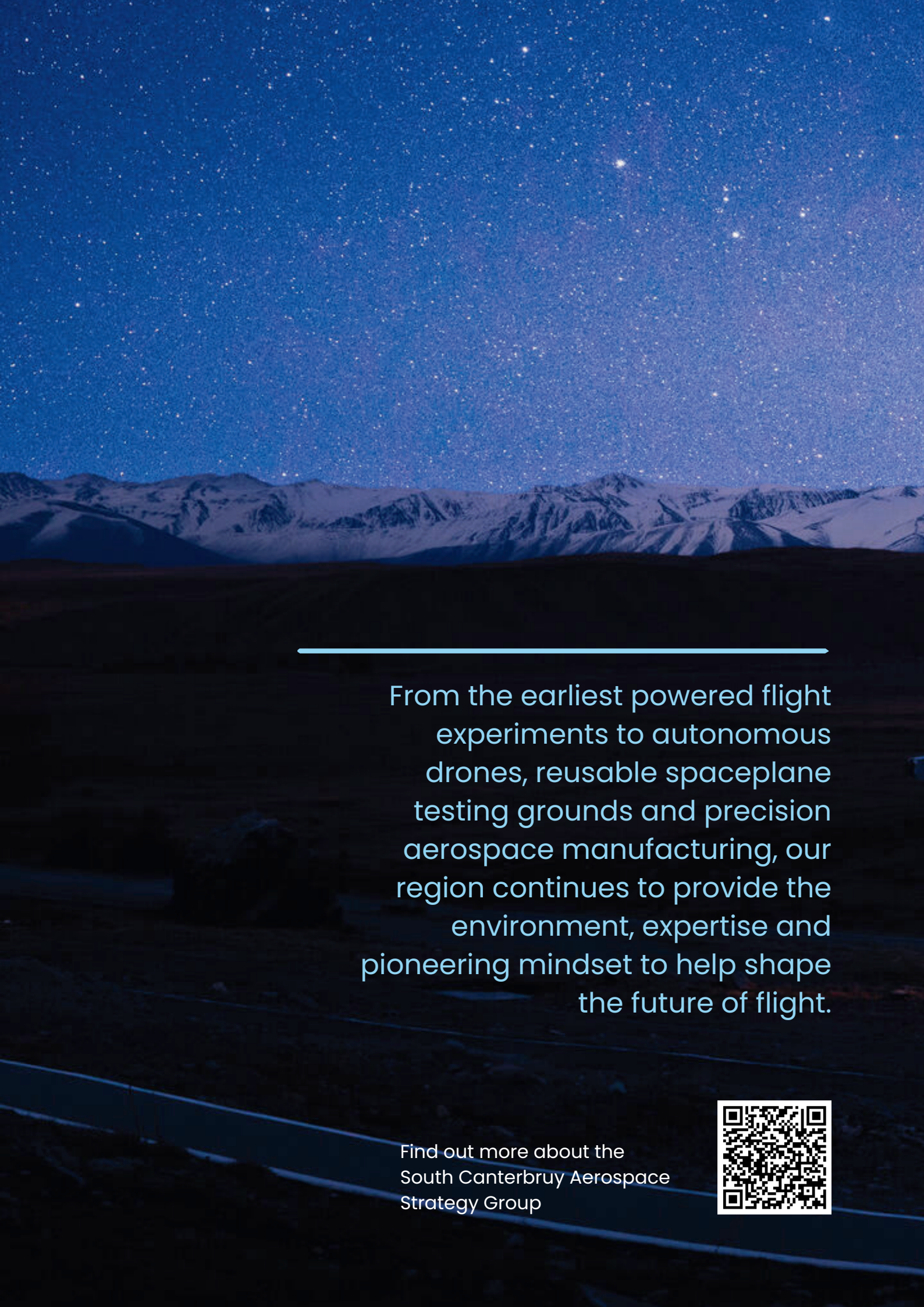
Planning for future industrial growth, enabling infrastructure and investment-ready land.

website www.timaru.govt.nz

PrimePort Timaru

Providing global freight connections and supporting advanced manufacturing and export industries

website www.primeport.co.nz



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Find out more about the
South Canterbury Aerospace
Strategy Group

