

MOBILISING AUSTRALIA



AVIATION

Rick Gray

CONTENTS

AIRCRAFT 3

History.....	3
Data	4
Strategic Trends	4
Industry Players	5
Mobilising Aviation.....	6
Defence Procurement.....	6
Strategic Partnerships	6
Niche aircraft segments	7
Government	7
Aviation Hub	7
Case Study: GippsAero	8
Case Study: VictorAirtourer	10
Case Study: Nomad.....	12
Case Study: Embraer	13
Case Study: Wamira.....	15
Case Study: Jabiru.....	17
Conclusions.....	18
Mobilising – Aviation.....	19
The Last Word	20
The Author	21
References.....	21

AIRCRAFT



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Aircraft manufacturing in Australia grew slowly before WW1, peaked during WW2, and then declined steadily. The last significant aircraft project was the final assembly and delivery of the Mirage 3 to the RAAF in 1968. After that, production tapered off, largely due to the absence of a clear government vision and plan for the industry's future.

Today, Australia's aircraft manufacturing industry is small yet strategically significant, with strengths in defence, aerospace components, light aircraft manufacturing, and maintenance and repair services. The success of local manufacturers, driven by entrepreneurs, clearly demonstrates that Australia can manufacture aircraft and export them to the global market. The challenge now is to scale that success.

HISTORY

The first Australian-built aircraft was a modified Bristol Boxkite, constructed in 1914 (Hassan, 2024). This period was marked by small-scale efforts in military and civilian aviation. WW1 sparked a surge in local manufacturing. The Australian government supported production, leading to the establishment of companies such as the Australian Aircraft and Engineering Company. By 1918, around 100 aircraft had been built, highlighting the role of war in fostering manufacturing capabilities.

The 1920s, along with the hardships of the Great Depression and the austerity of the 1930s, were challenging periods for Australia, during which aviation was a low priority. The country faced difficulties in recovering from the Depression and was ill-prepared for WW2. The war spurred a major expansion in aviation manufacturing, with the government making substantial investments by converting various factories into aircraft plants. By the end of the war, Australia had produced over 10,000 aircraft, including fighters and bombers, demonstrating significant industrial progress.

Key wartime achievements include the production of Beaufort bombers, Boomerangs, Beaufighters, Mosquitoes, Mustangs, and nearly 2,000 aircraft engines. The Beaufort program is often regarded as Australia's greatest manufacturing achievement, symbolising national effort.

After WW2, aircraft manufacturing shifted to civilian applications. The expansion of commercial aviation led to the formation of companies such as the Commonwealth Aircraft Corporation and the introduction of iconic models such as the Fokker F.VII and the Avro Anson. The aircraft industry reached a technological zenith through involvement in the RAAF Canberra and Avon Sabre programs.

By the 1960s and 1970s, the industry began exploring new technologies, including composites and advanced aerodynamics. Companies such as Hawker de Havilland (HdH) focused on R&D to improve efficiency and safety in aircraft design. Statistics indicate that in 1980, about 25% of the Australian aircraft fleet was locally manufactured.

In recent decades, the Australian aircraft manufacturing sector has integrated into global supply chains. Companies began collaborating with major aircraft manufacturers such as Boeing and Airbus. Light aircraft manufacturing slowly emerged, although there have been a number of false starts.

Today, a new industry for outsourced repair, maintenance, and support of Australia's military and commercial aviation capabilities has emerged and plays a vital role in supporting the nation's aviation base. Australia has developed strong niche advanced aerospace manufacturing capabilities. The future is now centred on high-tech solutions, sustainability, and export potential. Innovation is evident in sectors such as unmanned aerial vehicles (UAVs) and aerospace components.

In short, Australia no longer builds complete aircraft fleets as it did in WW2, but it maintains a strategic aerospace sector focused on defence, repair, and innovation in sustainable technologies. Its future is closely tied to AUKUS, defence budgets, and niche technological leadership rather than mass commercial aircraft production.

DATA

- **Revenue:** Around \$4.0B (2025-26) for aircraft manufacturing and repair services.
- **Employment:** Around 12,700 workers across about 1,000 businesses.

Strategic Trends

- **Defence Investment:** The record \$55.7B defence budget (2024–25) and AUKUS partnership are driving demand for high-value aerospace manufacturing.
- **Commercial Aviation:** While global competition has reduced large-scale aircraft assembly in Australia, niche component production and MRO remain strong.

- **Exports & Imports:** The industry generated \$3.5B in 2022, but revenue has declined about 40% since its 2015–16 peak due to offshore competition.
- **Innovation:** Companies are investing in battery-electric and hybrid propulsion systems.
- **TAE Aerospace** (Ipswich, QLD): Specialises in gas turbine maintenance and aerospace services.
- **Defence-linked SMEs:** Numerous smaller firms supply avionics, composites, and systems integration for RAAF and allied programs.

Industry Players

The aviation landscape in Australia is influenced by various sectors and companies, each fulfilling distinct roles.

Major Companies:

- Boeing Australia.
- Airbus Australia Pacific.
- Lockheed Martin Australia
- Thales Australia
- BAE Systems Australia
- De Havilland Australia
- GippsAero
- Jabiru Aircraft

Supporting Industries:

- Advanced manufacturing.
- Engineering services.
- Research and development.
- Parts and component supply.
- Maintenance, repair, and overhaul (MRO) services.

Government and Defence Involvement:

- Australian Department of Defence.
- Research programs and funding initiatives.

Academic and Research Institutions:

- Australian National University.
- University of Sydney.
- University of Melbourne.
- RMIT University

The aircraft manufacturing industry faces various challenges and opportunities as it moves forward. Various companies, supporting industries, and stakeholders contribute to aircraft production in Australia, each bringing unique strengths and perspectives to the sector.

As a result, Australia plays a critical role in supplying aircraft components and systems. The country focuses on fostering innovation to remain competitive in the global aircraft supply chain. Overall, Australia's aviation sector is robust and strategically integrated into the international market.

MOBILISING AVIATION

The national strategy must be to re-establish sovereign aircraft manufacturing in Australia, anchored in defence, long-term development and strategic requirements.

Australia lacks the sovereign capacity to independently design, produce, and maintain large-scale military or commercial aircraft. Its reliance on foreign supply chains exposes the defence sector and the national industry to strategic risks, prolonged delays, and heightened vulnerability during regional crises or mobilisation. Currently, lead times for aircraft and their parts are measured in years rather than months. Restoring aircraft manufacturing capabilities is essential to strengthen national sovereignty, build a sustainable and resilient industrial base, and secure Australia's economic and sovereign future.

Defence procurement

Australia's population size limits large-scale commercial aircraft production, and so future expansion must be into the global marketplace. Defence expenditure is also ramping up significantly from its long-term average of about 2% of GDP to potentially 3-4% of GDP within 10 years.

The 2026 Defence Industry Development Strategy clearly aims to develop a self-reliant defence industrial sector, including the aerospace sector. This strategy offers the most direct route to establishing an aircraft manufacturing industry, as it ensures consistent demand for components, subsystems, UAVs, and specialised Defence platforms. Key levers include:

- Priority programs: F-35, Ghost Shark, guided weapons, UAV's, autonomous systems, trainers, light transport, rotary-wing components
- \$80M in Defence Industry Development Grants (DIDG).
- \$3B Defence Export Facility reform.
- Workforce expansion targets for defence primes.
- STEM pipelines and internships.
- Mandate local manufacture of selected airframes and sub-systems under long-term Defence procurement.
- Create a Mobilisation Aerospace Reserve of tooling, IP access, and surge-ready production lines.
- Establish strategic stockpiles of aerospace-grade materials for mobilisation.

Strategic Partnerships

Australia supplies high-value components to major international clients such as Boeing, Lockheed, and Airbus, securing hundreds of millions of dollars in contracts. This engagement boosts Australia's capabilities, helps it become a vital player in global programs, and paves the way for developing its sovereign manufacturing industry. Key sectors include component manufacturing, research and development, and maintenance services. As global supply chains are standard, Australia needs to grow its role in this area.

Niche aircraft segments

Australia currently builds light sports aircraft (Jabiru) and light commercial aircraft (GippsAero) and has a baseline from which to progress to larger, more sophisticated aircraft. Niche areas could include:

- Light aircraft.
- Uncrewed Aerial Vehicles (UAVs).
- Autonomous systems (Boeing Loyal Wingman).
- Special-mission aircraft (surveillance, bushfire response, maritime patrol).
- Advanced composite structures (Quickstep, Carbon Revolution) such as carbon fibre wheels, fuselage sections, fairings, control surfaces.
- Electric & hydrogen projects are currently supported by state and federal innovation programs
- Drone technology in Australia has gained momentum, particularly in agricultural and environmental applications, and has been stimulated by the Russia/Ukraine war.

Government

The Australian government backs the industry with various initiatives, such as funding research and development. Long-term industrial support is also encouraged through incentive programs including:

- **Future Made in Australia:** This Act offers \$22.7B in incentives.
- **The National Reconstruction Fund Corporation (NRFC):** This identifies transport manufacturing, including aircraft, as a priority for sovereign capability. It supports propulsion systems, batteries and power electronics, autonomy and control software and aviation-related manufacturing.
- **The Civil Aviation Safety Authority (CASA):** Provides a national certification pathway that accelerates the integration of local suppliers into the global aerospace sector. It connects them with international regulatory bodies and approval organisations, which is essential for ensuring manufacturing meets legal standards and that aircraft are certified as airworthy.
- **Defence Industry Development Strategy:** The DIDG program provides grants up to \$1M for SMEs to buy manufacturing equipment for defence-aligned aerospace production.

Aviation Hub

Australia's aircraft industry is now fragmented and diminished from its former importance in the national industrial base. Nevertheless, entrepreneurial spirit and energy have established a viable foundation that could be expanded into a global industry. All developed nations acknowledge the significance of the aviation sector and have taken necessary steps to develop it.

Case Study: GippsAero

GippsAero, based in Morwell, Victoria, is Australia's only producer of commercial aircraft. It manufactures single-engine utility planes such as the GA8 Airvan and the agricultural GA200 Fatman.

Founded by Peter Furlong in 1977 as Gippsland Aeronautics, the company began as a maintenance and modification shop at Latrobe Regional Airport in Morwell. In 1984, George Morgan joined Peter Furlong to form Gippsland Aeronautics Pty Ltd.

Between 1985 and 1991, in response to requests from local aircraft operators for an agricultural aircraft with better lifting and handling capabilities than other available aircraft, Gippsland Aeronautics developed the GA200 Fatman, based on the Piper PA-25 Pawnee. The GA200C Fatman was type-certified by the Australian Civil Aviation Authority in 1991.



Photo GA200 Fatman, Steve Scalise.

In 1993, the company began designing a new aircraft, the GA8, with the prototype GA8 Airvan making its first flight in August 1996. The Airvan then went through extensive flight testing and development. It received certification from the Australian Civil Aviation Safety Authority in 2000, and exports began in 2001.

The aircraft has achieved numerous sales across Australia, with foreign sales in the UK, Holland, Germany, Indonesia, New Zealand, South Africa, Botswana, Mozambique, Lesotho, the USA, Canada, and Belize. The 100th Airvan was delivered in September 2006, marking a major milestone in Australian aircraft manufacturing. By February 2007, Gippsland Aeronautics had produced 110 GA8 Airvans and 50 GA200 Fatmans. Several variants of the Airvan have been produced in limited

numbers, including a turboprop and a stretched version of the GA8, developed under Mahindra ownership.



Photo: US Civil Air Patrol GA8 Airvan.

The period from 2008 to 2020 was tumultuous for the company. Around 2008, it acquired the Nomad type certificate, and in 2010, it rebranded as GippsAero Pty Ltd. In 2009, Mahindra Aerospace took a controlling stake, aiming to develop an aircraft business similar to Embraer. However, production declined over time, and by 2021, the company shifted its focus to spares and support services.

In November 2023, George Morgan announced his acquisition of GippsAero as sole owner. By June 2025, the company had resumed producing complete aircraft, including the GA8 Airvan, becoming the sole commercial aircraft manufacturer in Australia. The new Airvans are expected to be operational in 2026.

Future plans also involve the revived Nomad. On June 18, 2008, Gippsland Aeronautics announced it had secured the bid to acquire the type certificate for the GAF Nomad and that it was likely to resume production. The redesigned twin-engine, 18-seat Nomad will be named the GA18 and will feature new engines, propellers, a glass cockpit, and weight-saving enhancements.

GippsAero is an Australian aviation success story, demonstrating a proven capacity to design, certify, and export aircraft. As a rare sovereign capability, it serves as a model for future projects and is closely aligned with the strategic priorities of the aviation sector.

GippsAero exemplifies resilience in navigating the challenges and turbulence faced by Australian aviation manufacturing over the past 50 years.

Case Study: Victor Airtourer



Photo: Victor Airtourer – Airhistory.net.

The Victa Airtourer and its subsequent reincarnation as the CT4 RAAF Trainer exemplify one of the most significant lost opportunities in Australian aviation. The Victa Airtourer is a lightweight, all-metal low-wing monoplane designed for touring, developed in Australia and manufactured in both Australia and New Zealand. Designed by Henry Millicer, the chief aerodynamicist at Australia's Government Aircraft Factories, its design won a 1953 competition organised by Britain's Royal Aero Club. Many units remain operational today.

The prototype, made of wood, was first flown on 31 March 1959. It was designed to replace older training aircraft like the Tiger Moth and Chipmunk. Development progressed to an all-metal version, with the production model taking its first flight in December 1961.

Interest in the design was expressed by Mervyn Richardson, Chairman of Victa Ltd, a company primarily known for manufacturing lawn mowers and light two-stroke engines. Richardson was keen to venture into the aviation industry. Between 1961 and 1966, Victa Ltd. produced the all-metal Airtourer, offering 100 hp and 115 hp models. Production by Victa continued until 1966.

After the Australian Government rejected Victa's appeals for tariff protection and direct subsidies to keep production running, the company suspended production of the Airtourer in February 1966, having built 172 units. The division was completely shut down on 20 January 1967.

The maintenance firm Aero Engine Services Ltd (AESL) in New Zealand bought the manufacturing rights to the Airtourer the following year, continuing production of the 115 hp and 150 hp models until 1973.

Henry Millicer also designed the Victa Aircruiser, a four-seat derivative powered by a 210 hp Continental O-360 engine. It received certification in 1967. AESL acquired

the rights to this design in 1970 and used it as the basis for the CT/4 Airtrainer. A total of 168 were completed or substantially completed by Victa in Sydney, and a further 80 were built by AESL in Hamilton, NZ.

In 1971, the RAAF needed a new training aircraft. The proposed CT4 was built on a sturdier airframe from the Aircruiser. It differs from the Airtourer and Aircruiser by having a bigger engine and a bubble canopy.



Photo: CT/4 RAAF Trainer – Airliners.net.

The CT/4 prototype's first flight occurred on 23 February 1972. Two prototypes were built, and on 1 March 1973, AESL became New Zealand Aerospace Industries Ltd. Production started after the Royal Thai Air Force ordered 24 units. The aircraft was later selected as the primary trainer for the RAAF, which purchased 51 units. The 64th aircraft was the first CT/4B model, mainly featuring instrumentation upgrades. Additionally, the Royal New Zealand Air Force ordered 19 units.

For several years, Airtrainer production halted, although the type remained technically available for orders. In 1991, to secure a significant USAF contract, two new versions of the CT/4 frame were flown: the CT/4C turboprop and the CT/4E with a 300 hp piston engine. Neither received production orders initially, but in 1998, production of the CT/4E began following orders from the Royal New Zealand Air Force for 13 units and the Royal Thai Air Force for 16 units. Both countries used the CT/4E to replace their earlier CT/4A and B models.

The CT/4 showcased agility and effectiveness as a military training plane. By 2024, 155 units had been produced, proving Australia's ability to design and manufacture high-quality training aircraft. The Victa Airtourer was sold to New Zealand in 1967, later acquired by the RAAF as the CT/4, and remained in limited production in various forms for many years.

Case Study: Nomad



Photo: GAF Nomad

The GAF Nomad is a utility aircraft developed by the Government Aircraft Factories (GAF) in Melbourne, Australia. This twin-turboprop, high-wing aircraft features retractable landing gear and was produced in two versions: the original N22 and the longer N24. Supported by the Australian Government, design work began in the mid-1960s, and the first flight took place on 23 July 1971. Although it achieved some export sales and was used commercially, overall sales were limited, leading to the end of production in 1985. In total, only 172 aircraft (including the two prototypes) were manufactured.

The Royal Flying Doctor Service, the Australian Army, and the Australian Customs Service were key operators. In the 1990s, the Australian military phased out nearly all of its remaining Nomads because of safety concerns. By the end of the decade, only a few aircraft continued to operate regularly in Australia.

GippsAero obtained the Australian type certificate for the Nomad in 2008 and announced plans to relaunch it as the GA18. The project moved forward gradually but was eventually halted, with all aircraft manufacturing at the facility ceasing in late 2020. In June 2025, production resumed with the GA8 Airvan, and factory support for the Nomad remains ongoing.

The Nomad saga is one of the more striking examples of the lack of a long-term vision for aircraft manufacture in Australia. The hard work for the design, development, and entry into service had been done. However, the entrepreneurial flair required to move to the next-generation Nomad within government forward was lacking, and the concept died.

Case Study: Embraer



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Embraer was founded on 19 August 1969. It is Brazil's leading aerospace company and the third-largest aircraft manufacturer globally, trailing only Boeing and Airbus. Its diverse product range includes commercial jets, business jets, military aircraft, UAVs, and agricultural aircraft. Embraer stands out as a prime example of a middle-power developing a globally competitive aircraft industry. It has delivered more than 9,000 aircraft to over 100 countries and employs approximately 19,000 people.

Embraer leads the sub-150-seat jet market. It also manufactures the A-29 Super Tucano, a light-attack, armed-reconnaissance, and advanced training aircraft used by more than 60 air forces worldwide.

Embraer serves as the best comparison for Australia's goals. The aircraft sector originated from an industrial foundation typical of middle-power nations. During the 1960s–1990s, Brazil faced comparable challenges: scarce capital, low domestic demand, and a strategic requirement for sovereign capabilities. Embraer thrived by leveraging government support, military projects, and a focus on exports. The key elements for the success of Embraer were;

- **National Aerospace Vision.** Brazil started with a national aerospace vision: build aircraft in Brazil, for Brazil, and then for the world. Australia's current approach is distributed across SDIPs, precincts, and Defence procurement.
- **Defence as the Industrial Anchor.** Embraer's growth was driven by military programs, which provided consistent demand and strengthened its engineering capabilities. This included the production of sovereign aircraft.
- **Long-Term Industrial Policy and Financing.** Brazil utilised government financing, export credit, and protectionist domestic policies to develop Embraer into the world's third-largest aircraft manufacturer.
- **Certification and Engineering Depth.** Embraer's competitive edge lies in its comprehensive engineering expertise, enabling it to design, test, certify, integrate, and maintain aircraft.

- **Exportable Sovereign Platforms.** Embraer succeeded by building exportable aircraft in niches: regional jets, light military aircraft, and special-mission platforms.
- **National Industrial Hub.** Embraer's national aviation sector includes universities, research institutes, supply chains, and certification bodies.

In just 37 years, Brazil's aviation sector has transformed from a small-scale operation to a major international player. The lessons from this journey offer valuable guidance for Australia to consider as it sets its own goals.



Photo: Embraer A-29 Super Tucano.

Founded in 1969 as a government-owned enterprise, Embraer was privatized in 1994. The Brazilian government still holds a small share via golden shares, giving it veto rights over specific decisions. Currently, Embraer functions as a private entity mainly owned by investors. The key strategic lessons from Embraer include:

- Build around a single national aerospace mission.
- Anchor industry in sovereign defence programs.
- Use state-backed financing.
- Develop full certification and engineering depth.
- Grow exports through long-term global partnerships.

These lessons map directly onto Australia's 2026 Defence Industry Development Strategy and SDIPs.

Embraer demonstrates what can be accomplished with a national vision, government support, and entrepreneurial commitment.

Case Study: Wamira



Photo: Wamira Prototype, Aeropedia.

In the late 1970s, the Australian Government considered options to replace the CT-4 Airtrainer for RAAF pilot training. On December 1, 1981, it announced that an aircraft designed in Australia would be developed. Subsequently, on June 16, 1982, the Government awarded a contract to the Australian Aircraft Consortium Pty Ltd (AAC) to design, develop, and produce two prototypes of a new basic trainer for the RAAF. The name “Wamira,” inspired by the Woomera throwing stick and of Aboriginal origin, was selected.

Roll-out of the prototype was planned for December 1984, the first flight in February 1985, RAAF acceptance trials finishing in April 1987, and entry into RAAF service in 1988. The RAAF noted that no existing trainer met the requirement, primarily because it preferred side-by-side seating to a tandem layout.

The requirement included two prototypes and 69 production aircraft, with manufacturers optimistic about selling more internationally, perhaps up to 200 aircraft. At that time, any overseas-designed aircraft needed modifications to meet RAAF standards and to accommodate specific equipment.

The aircraft was all-metal, stressed-skin, using some advanced composite materials, providing a service life of 8,000 flying hours over 20 years. In addition to having a turboprop engine, it was to have an electrically operated tricycle undercarriage designed for grass or semi-prepared surfaces. Seating was provided for two pilots side by side, with room in the rear of the cockpit for an additional two seats, if required, or for additional equipment.

In 1984, the Royal Air Force (RAF) issued a tender for a new trainer aircraft to replace the Jet Provost, with an expected requirement of up to 150 units. At that time, AAC aimed to secure sales across Europe, including France. After reviewing 17 designs, a shortlist of four types was announced, among them the Wamira. Since the Australian A-10 was designed with an optional third seat behind the front two, the fuselage did not require modification to meet the RAF's needs.

A mock-up of the RAF variant, called the A-20, was created. It differed from the Australian A-10 by featuring tandem seats and a cockpit that was described as

“virtually identical to that of the Hawk.” The mock-up included a fuselage from the tailfin fillet forward, with stub wings made of wood and alloy, and was equipped with ejection seats, control columns, and rudder pedals.

The Australian proposal was ultimately excluded because it was not yet operational, whereas the other two competitors were. The RAF chose the Embraer Tucano, and the A-20 was never manufactured. Nevertheless, efforts to secure the British order diverted resources and time from the A-10 development for the RAAF, causing the program to fall behind schedule.

In July 1985, the Australian Cabinet announced that it had asked Hawker de Havilland (HdH) to take over the A-10 project and submit a new bid to compete with Pilatus and Shorts. The Government’s decision to introduce overseas competition after three years of development on the A-10 project, which had cost \$60M, was of great concern to Australian manufacturers.

In December, the Company sought the Government’s approval for the A-10B, claiming it addressed the Government’s concerns. The company announced that, after developing a better design, it re-priced it based on the top production standards of Australia’s aircraft industry. They noted that the RAAF’s specifications for the A-10B were highly respected by other air forces. Additionally, the A-10B was unique as the only new-generation turboprop trainer with side-by-side seating. In its presentation, the company claimed that the A-10B was the only RAAF trainer with 100% Australian-made airframes. Australia would also retain the right to sell the aircraft worldwide, rather than being limited to sales territories assigned by an international partner.

On 17 December 1985, the Australian Government cancelled the Wamira project, citing it was over budget, with total costs more than doubling and a 13-month delay. Instead, they ordered the Swiss-built Pilatus PC-9. At that time, the prototype was nearly finished and close to flying, and a second aircraft was also nearing completion.

The decision to purchase the tandem-seating PC-9 was a complete reversal of the original requirement. Had the design of the Wamira proceeded initially as a tandem-seat trainer for both the RAAF and the RAF, the situation may well have been much different in the long term, rather than expending effort on two different designs. In the event, the CT-4, which was to be replaced, remained in service for some further time and the PC-9 was used only as an advanced trainer. All work on the project ceased in March 1986.

The Wamira exemplified the Australian penchant for bureaucratic procrastination and RAAF meddling in design specifications, leading to the project's collapse. The need to accept a cost premium for an Australian aircraft was also not considered.

Case Study: Jabiru



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Founded in Bundaberg in 1988, Jabiru Aircraft has manufactured over **2,000 aircraft and 7,000 engines**, exporting worldwide while upholding sovereign certification, production, and sustainment for more than 35 years. It is Australia's most successful and longstanding aircraft manufacturer, offering a range of kit and ready-to-fly civil light aircraft (Jabiru, 2022).

The aircraft are mainly constructed from composite materials and are standard high-wing monoplanes, usually fitted with tricycle landing gear. Modern composite techniques have created a structure that is both strong and lightweight. Additionally, there is a Jabiru assembly plant located in George, Western Cape, South Africa.

Founded in 1988 by **Rodney Stiff and Phil Ainsworth**, the company aimed to produce affordable light aircraft in both kit and certified versions. The Australian Civil Aviation Authority certified its first aircraft in October 1991. After the original engine supplier stopped production, Jabiru started developing its own engines, and by 1995, the Jabiru 2200, a horizontally opposed, four-cylinder, air-cooled engine, was available. The range later expanded to include the six-cylinder Jabiru 3300 and the eight-cylinder Jabiru 5100. To date, over 3,900 four-cylinder and more than 2,900 six-cylinder engines have been manufactured. Although Jabiru engines previously faced reliability issues, their performance has significantly improved.

Jabiru demonstrates that producing light aircraft in Australia is feasible. The company serves as a prime example of local design, certification, manufacturing, engine production, export opportunities, and sustainable long-term support. It offers a valuable model for future national programs in aerospace and defence, aligning with the Sovereign Defence Industrial Priorities and the Defence Industry Development Strategy (DIDS, 2026).

CONCLUSIONS

Australia's WW2 aircraft industry stands as one of the clearest demonstrations of what national mobilisation can achieve. In the early 1940s, facing an existential threat and cut off from overseas supply chains, Australia transformed its industrial base almost overnight.

Thousands of aircraft and nearly 2,000 engines were manufactured. Factories were repurposed, tens of thousands of workers, including many women entering industrial roles for the first time, were mobilised, and improvisation became innovation. The Boomerang fighter, designed and produced within weeks, exemplified the nation's ability to adapt quickly in times of crisis.

Today, Australia's aerospace sector is once again growing from a modest start, largely driven by dedicated entrepreneurs, specialised component technologies, maintenance and repair organisations, international partners, and the broader defence industry.

If the national strategy is to rebuild a sovereign industrial base, the aviation sector is a critical element. The potential of an aviation economic hub is enormous. It could simultaneously strengthen industrial capability, provide jobs and skills, drive education and scientific institutions, boost export potential, and strengthen national defence resilience. It would prove to be a nation-building industry with multi-decade strategic benefits and would be a cornerstone of the industrial revival.

The Australian aviation sector operates in a global market, which is essential to achieve economies of scale. It could develop a sustainable, high-value aerospace manufacturing base by leveraging defence budgets and targeted industrial policies. Embraer has taken 37 years to develop its industry to where it is today. This clearly demonstrates that bipartisan long-term policies are essential for success.

There will be many facets to such policies; however, backing the entrepreneurial success of companies such as Jabiru and GippsAero is key to the way ahead.

MOBILISING – AVIATION

The Vision: To establish a large-scale Australian commercial aviation manufacturing industry over 20 years.

Government:

- Agree on a bipartisan approach to the aviation industry.
- Create a 20-year plan to achieve the aviation vision.
- Develop and implement national policy to support the plan.
- Anchor sovereign aircraft programs in Defence procurement.
- Enact policy and taxation settings to incentivise the sector (see Productivity).
- Establish a government department to foster the sector.
- Enable protectionist measures against global competition - as practiced by all nations to foster and protect their sovereign industries.
- Domestic political ideological agendas and union activism to be subservient to the national interest.
- Establish an aerospace industrial hub.
- Invest in sovereign certification and test infrastructure.
- Develop a workforce and skills strategy to support the plan.
- Create long-term aerospace financing instruments.

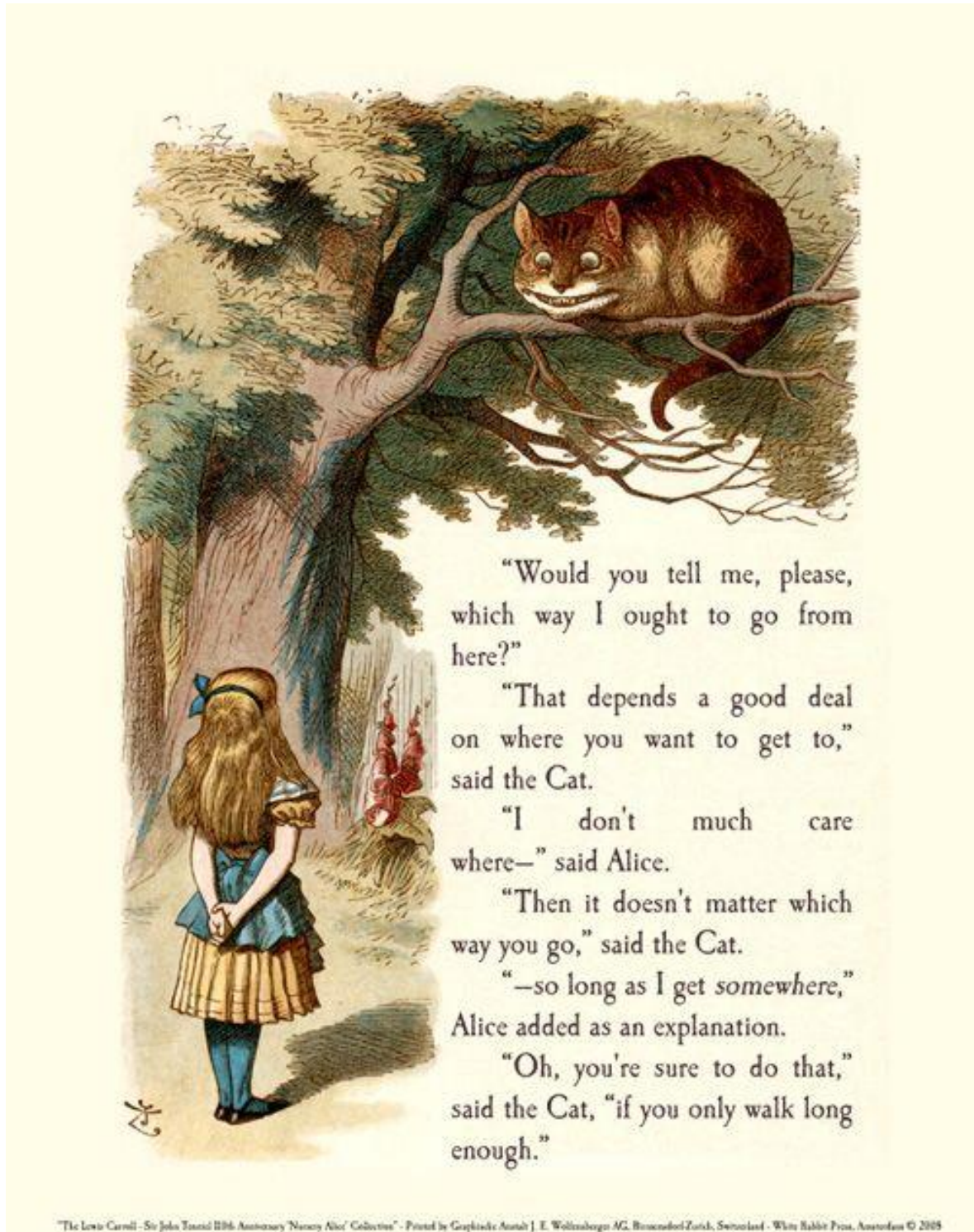
Strategic Industry:

- The aviation sector to be declared a Strategic Industry, and national resources mobilised to support it (see Government).
- The proven Jabiru and GippsAero models to be the baseline for future expansion.
- Partner with universities and scientific institutions in aerospace engineering, certification and test & evaluation.
- There is a need to accept an initial cost premium in anticipation that long-term gains will far exceed the initial investment.
- Private enterprise and entrepreneurship to be the foundation for the industry.
- A private enterprise/Government ownership model be established to ensure strategic control and continuity for the first 20 years.

Strategic Partnerships: Seek collaborative arrangements through AUKUS or QUAD, or with other allies to develop the aviation sector (see Government).

The Last Word

The last word belongs to Lewis Carroll and his “Alice in Wonderland” - Alice is lost in the forest, meets the Cheshire Cat and asks for directions. It is a perfect analogy for Australia’s present lack of a national vision, strategic planning, and purposeful direction. We are indeed at a crossroads in Australian history.



“Would you tell me, please, which way I ought to go from here?”

“That depends a good deal on where you want to get to,” said the Cat.

“I don’t much care where—” said Alice.

“Then it doesn’t matter which way you go,” said the Cat.

“—so long as I get *somewhere*,” Alice added as an explanation.

“Oh, you’re sure to do that,” said the Cat, “if you only walk long enough.”

“The Lewis Carroll - Sir John Tenniel 1886 Anniversary ‘Nancy Alice’ Collection” - Printed by Graphische Anstalt J. E. Wollraberg AG, Birmensdorf Zurich, Switzerland - White Rabbit Press, Amsterdam © 2005

The only difference between where we are today and what could have been - or what is possible in the future - is a question of national will.
Tomorrows History Starts today.

The Author

This paper draws on the author's experience in the Australian Army, as well as his industry experience across manufacturing and major defence and construction projects throughout Australia and overseas. He holds academic qualifications in Engineering, Management, and Operations Research. He is retired and lives in Melbourne.

He is a passionate Australian who wishes to see that Australia remains on the right side of history.

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