



Industry Skills Australia

2026 WORKFORCE PLANNING UPDATE



AVIATION INDUSTRY



JSC

Jobs and Skills Council
Transport and Logistics
An Australian Government Initiative

Acknowledgement of Country

Industry Skills Australia acknowledges the Traditional Owners of Country throughout Australia and recognises the continuing connection to lands, waters, skies and communities. We pay our respect to Aboriginal and Torres Strait Islander cultures and to Elders past and present.



About ISA

Industry Skills Australia (ISA) is the Jobs and Skills Council for the transport supply chain industries. These include Aviation, Maritime, Rail, Transport and Logistics, and the emerging sectors of Omnichannel Logistics and Distribution, and Air and Space Transport and Logistics.

ISA is owned and led by industry. Our goal is to build a world class workforce for Australia's transport supply chain industries to boost productivity, create better jobs and build opportunities for individuals. Our 30-year history working with industry supports us in researching workforce needs, promoting skills development and creating training products that meet industry priorities.

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We have taken great care in preparing this Workforce Planning Update. We aim to provide accurate and helpful information. However, we cannot guarantee that this document is completely error free. Industry Skills Australia Limited is not liable for any harm or loss that may arise from dependence on this information. We encourage readers to use this report as a guide and seek further advice where needed.

Use of Artificial Intelligence

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Foreword

I am pleased to present the 2026 Workforce Planning Update for Australia's Aviation industry, prepared by Industry Skills Australia (ISA) and overseen by the Aviation Strategic Workforce Planning Committee.

Workforce planning is central to ISA's mission. It provides the foundation for understanding current and future workforce needs and informs the actions and initiatives required to strengthen our industry's capability. This year's update continues that commitment by drawing on the insights, expertise and lived experience of stakeholders across the Aviation industry.

Throughout the consultation process, industry stakeholders reaffirmed the challenges and priorities identified in the 2025 Workforce Plans. Their feedback highlighted a strong desire for clearer reporting on actions and progress. In response, this update focuses on practical steps being taken, the status of initiatives, and opportunities for deeper industry engagement and collaboration.

Annual updates such as this one are essential for maintaining momentum. They provide a mechanism to monitor progress against industry priorities, ensuring our work remains relevant, responsive and aligned with the needs of industry. This year's update outlines the progress that ISA and our industry partners are making to address shared priorities, demonstrating the value of collaborative action.

Collaboration continues to be critical. Progress toward addressing the Aviation industry's workforce challenges will only be achieved through sustained cooperation between industry, unions, government, training providers and stakeholders across interconnected sectors.

This year, to accompany the Workforce Planning Update, we have produced a companion publication: the *Transport Supply Chain Workforce Outlook 2026*. The Outlook brings together key insights from Aviation, Maritime, Rail and Transport and Logistics, to articulate the strategic national significance of these deeply interrelated sectors and the shared challenges and opportunities they face.

I extend my sincere thanks to all stakeholders who contributed their insights, experience and ideas to this year's planning process. Your ongoing engagement is essential to shaping a resilient, capable and future-ready aviation workforce. We look forward to continuing this collaborative journey with you as we collectively shape the future of our industry.

Adrianne Fleming OAM
Chair
Aviation Strategic Workforce Planning Committee

Executive Summary

Australia's Aviation industry plays a critical role in connecting people and businesses across the country and around the world through the movement of passengers and freight by air. It is a vital enabler of national mobility, economic activity and international engagement.

Demand for aviation services is accelerating, with air traffic expected to double globally over the next 20 years¹ and Australia preparing for a 25–30% increase in domestic activity over the next decade.² Major investments, including more than \$40 billion in airport upgrades,³ aim to expand network capacity, while domestic passenger volume is recovering to pre-pandemic levels.⁴

The 2025 Workforce Plan identified **key challenges and drivers** that are impacting the aviation workforce. Further stakeholder consultation, research and analysis have confirmed the ongoing relevance of these issues for workforce planning. The key challenges and drivers point to four broad and interconnected priorities for the industry.

- 1

Access to a Skilled Workforce
- 2

Availability of Training
- 3

Preparedness for Change
- 4

Capability Development for Uncrewed Systems

¹ Western Sydney International Airport, *Corporate Plan 2025–26* [PDF], 2025.

² Airservices Australia, *Infrastructure in the sky: Why Australia's growth depends on getting airspace right*, ASA website, 28 October 2025.

³ Airservices Australia, *Infrastructure in the sky: Why Australia's growth depends on getting airspace right*, ASA website, 28 October 2025.

⁴ Airservices Australia report that airlines operated 2,799 domestic flights on 18 September 2025 marking it as the busiest day for regular public transport since 2019.

1. Access to a Skilled Workforce	2025			2026			2027		
Cabin Crew Skills Recognition	✓								
Improving Career Information*	⚙								
Increasing Diversity across Transport Supply Chain Industries*				⚙					
Skilled Migration*					🔍				
🔗 Women in the Aviation Industry Initiative									
🔗 Aviation White Paper: Towards 2050									
🔗 CASA: General Aviation Workplan									
🔗 CASA: Modular Licensing for Aircraft Maintenance Engineers									
🔗 CASA: Seeking to Recognise Foreign Aircraft Maintenance Licences									
2. Availability of Training	2025			2026			2027		
Aviation Operations (Rescue)	✓								
Transport Security Protection	✓								
Defence Flight Instructor	⚙								
VET Workforce Project*	⚙								
Diploma of Aviation – Flight Instructor	⚙								
Ground Operations Skills Analysis		⚙							
Flight Instructor Higher Apprenticeship/ Traineeship Feasibility Study				⚙					
Airport Operations Training Package Review					■ ■ ■				
Improving Regional Training Delivery*				⚙					
Training Outcomes Monitoring Framework*					■ ■ ■				
Consultation on support for LAMEs self-study pathway; and national coordination of training				🔍					
🔗 CSIRO: Aviators in Schools									
3. Preparedness for Change	2025			2026			2027		
Air and Space Skills Gap Analysis	✓								
Digital Skills*		⚙							
Technology Futures Taskforce Phase 2 - Occupational Analysis*					⚙				
Technology Futures Taskforce Phase 2 - Geographical Analysis*						■ ■ ■			
Consultation on space transport qualification; and sustainable aviation fuels (SAF) and alternative fuels				🔍					
🔗 Cleaner Fuels Program									
4. Capability Development for Uncrewed Systems	2025			2026			2027		
Remote Pilot Licence (RePL) Alignment	⚙				⚙				
RPAS Tiered Competency Requirements				⚙					
Advanced Air Mobility Skills Gap Analysis				⚙					
🔗 Uncrewed Traffic Management Action Plan									
🔗 CASA: RPAS and AAM Strategic Regulatory Roadmap									
🔗 First Nations Drone Policy Design Project									

Get Involved

This Update outlines how ISA and industry are addressing aviation workforce challenges. Scan the QR codes throughout the Update to learn more about current initiatives and explore ways to get involved. Your feedback and insights are vital and will help shape future action.

This table shows the status of ISA activities as at June 2026.

- Completed
- ✓
- In progress
- ⚙
- Planned
- ■ ■
- Exploring
- 🔍
- Related initiatives
- 🔗

*Cross-industry activity

Industry Overview

About the Industry

Australia's Aviation industry plays a pivotal role in connecting people, communities and businesses. It supports Australia's domestic and international supply chains, enables tourism and trade, and generated \$63.9 billion in revenue in the 2024–2025 financial year⁵ while employing more than 71,000 people.⁶

The industry comprises multiple interconnected sectors, including commercial and regional airlines, air freight and logistics, airport operations, aviation firefighting and emergency services, agricultural and aerial spraying, drone operations and a diverse General Aviation (GA) sector. Aviation industry activities can fall into, but are not limited to, three broad occupational areas:



Flight Operations – planning, executing and managing flights including all aspects of flight coordination and management, from pre-flight preparations to post-flight procedures and safety.



Airport Operations – managing and supporting passengers and freight through airport systems, including security screening, ground operations and the turnaround of aircraft between flights.



Aviation Rescue – conducting rescue operations and emergency response to ensure the safety of people, crew and aircraft during critical situations.

The workforce is expected to grow by 4.5% by May 2030 and 12.6% by May 2035,⁷ reflecting strong and sustained demand across aviation services. Passenger volumes have also expanded significantly, with domestic passengers nearly tripling and international passengers almost quadrupling between 1995 and 2025.⁸ Air travel is forecast to continue to outpace global economic activity, largely driven by rising tourism demand and an increase in service levels.⁹ Visitor arrivals are expected to grow 35% over the next five years in the Oceania region due to strong inbound tourism.¹⁰

Australia's Aviation industry is also being shaped by major long-term infrastructure investment, most notably the construction of Western Sydney International (WSI), Australia's first greenfield airport in more than 50 years. WSI will open with capacity for 10 million passengers, scaling to 80 million over 40 years.

The development has already generated significant local economic benefits including \$500 million spent with local businesses and significant local employment.¹¹

Airservices Australia is investing in infrastructure and technology upgrades to support the introduction of digital aerodrome services and ensure the safe integration of uncrewed aircraft into controlled airspace. The emergence of new aircraft types and operational models is also driving regulatory reform, with future requirements expected to include more sophisticated airspace management systems, stronger integration between crewed and uncrewed operations, and new workforce capabilities to safely support the expanding use of advanced aviation technologies.



NUMBER OF AVIATION
INDUSTRY BUSINESSES

2,581

200+
employees
20

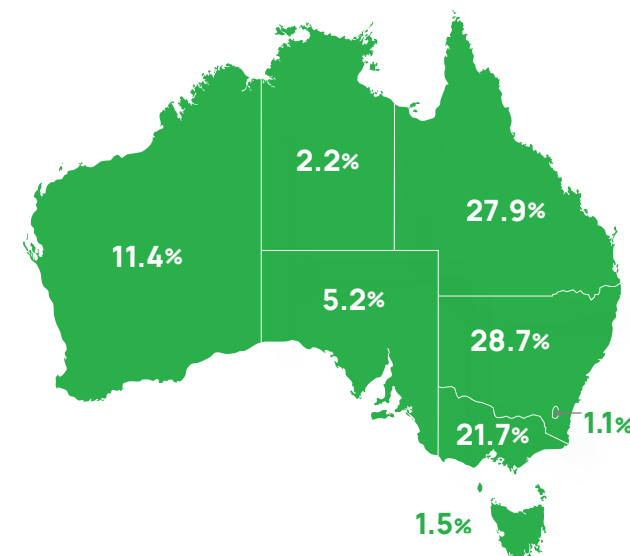
20–199
employees
133

0–19
employees
2,428

GDP CONTRIBUTION 2024–2025

\$26.4B

BUSINESS DISTRIBUTION BY STATE %



MEDIAN GENDER PAY GAP

23%

ESTIMATED ANNUAL
REVENUE 2024–25

\$63.9B



REGISTERED DRONES
IN AUSTRALIA

28,545



PASSENGERS ON DOMESTIC
COMMERCIAL FLIGHTS

63.77 MILLION



AIRPORTS IN AUSTRALIA

159

REGIONAL AIRPORTS
CARRY % OF ALL
DOMESTIC PASSENGERS

21%



WORKFORCE IN
AVIATION COMPANIES

71,148 (2025)

74,318 (2030)

Link to ISA Data Dashboard



⁵ IBISWorld Industry Wizard, February 2026.

⁶ Jobs and Skills Australia, *Employment Projections – May 2025 to May 2035*, JSA website, 2025.

⁷ Jobs and Skills Australia, *Employment Projections – May 2025 to May 2035*, JSA website, 2025.

⁸ Bureau of Infrastructure and Transport Research Economics, *Australian aviation forecasts – 2024 to 2050*, Tables 6.1 and 6.3, Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts, 2024.

⁹ Western Sydney International Airport, *Corporate Plan 2025–26*, 2025, p 15.

¹⁰ Boeing, *Commercial Market Outlook 2025–2044* [PDF], 2025.

¹¹ Western Sydney International Airport, *Corporate Plan 2025–26* [PDF], 2025.

Impact of Global Megatrends

Megatrends are major long-term shifts that reshape the economy, workforce and global environment. They influence how industries operate, innovate and plan for the future. Six global megatrends are having significant and enduring impacts across industry and society.

For the Australian Aviation industry, these megatrends have implications for future workforce skill requirements.



Demographic Shifts

Australia's Aviation industry is increasingly constrained by an ageing workforce and a shrinking labour pool, with employers struggling to fill critical roles as experienced workers approach retirement. Employers report that younger entrants are less likely to remain in the industry long term, creating further instability in the workforce pipeline. Although employers may perceive this as a lack of loyalty or commitment, research findings indicate that the younger generation has a keen desire for career progression and can be quick to move on if they perceive their growth has stalled.¹² In some Aviation organisations, limited succession planning has slowed progression for early-career workers until senior employees retire, reducing opportunities to retain younger talent. Without family or home ownership responsibilities, younger cohorts can also be more mobile and often drawn to opportunities overseas or in other industries. Taken together, these factors present significant challenges for workforce continuity and long-term capability planning.



Infrastructure Demand

Population growth is driving demand for new and upgraded infrastructure across Australia. However, competition for government investment, across transport, energy, housing and digital networks, is placing pressure on funding pipelines, including for essential aviation infrastructure. The expansion of urban infrastructure also impinges on aviation operations by restricting access to airspace and airport facilities. Flight schools based in metropolitan areas, such as Bankstown and Moorabbin, have had to relocate due to the difficulty of accessing suitable training areas as airspace becomes more congested.¹³ Major city airports also have limited room to expand ground-based facilities as surrounding developments encroach on available land.

General Aviation operators face significant operational challenges relating to infrastructure management. In recent years these have included unresolved lease arrangements, escalating rents, the progressive loss of aeronautical land and limited transparency in airport master-planning processes. As a result, industry stakeholders have consistently called for stronger scrutiny of development decisions to ensure that aviation use of airport land and infrastructure is protected and supported over the long term.¹⁴ Industry and government are working collaboratively to address these issues through the Aviation White Paper, which sets out expectations around community consultation processes and appropriate access for General Aviation on airport sites in master-planning processes. The White Paper also recognises the importance of supporting regional airport infrastructure, particularly to enable future operational and net-zero transition requirements.¹⁵



Technological Change

Rapid advances in AI, automation and digital technologies are reshaping job roles across the Aviation industry, driving both productivity gains and disruption to traditional workforce structures. Automated systems being introduced at Western Sydney International are expected to introduce new skill requirements for baggage and ramp operations, with ground handlers increasingly required to use shared or robotic equipment and interact with intelligent systems. In future, the expansion of self-service technologies, such as self check-in, will reconfigure customer service roles and required skills. Likewise, automated prohibited item-detection technologies in security screening will further require workforce upskilling as staff adapt to advanced systems that enhance safety but change day-to-day operational requirements. These types of development will require a transition to a more technology-enabled workforce where digital proficiency becomes essential across all frontline and technical roles.

Beyond passenger-facing operations, the wider aviation ecosystem is undergoing major technological transformation that will drive long-term workforce change. Airservices Australia is investing in largescale digital infrastructure, which will support the rapid growth of uncrewed and autonomous systems. As regulatory settings evolve, industry stakeholders emphasise the need for clearer visibility of the legislative pipeline to help organisations plan for emerging technologies and develop the workforce capabilities required to adopt them safely and effectively.



Energy Transition

The global shift toward renewable and low-carbon energy systems is accelerating and will impact investment priorities and long-term infrastructure planning across Australia's aviation sector. This transition will drive demand for new workforce capabilities as airlines, airports and manufacturers adapt to emerging low-emissions technologies. Stralis Aircraft provides one example of this transition. The Queensland-based company has partnered with Central Queensland University to develop technology for green hydrogen-powered aircraft, with plans for commercial flights between Brisbane and Gladstone by 2027.¹⁶ As new aircraft propulsion technologies advance from research to commercial deployment, the aviation workforce will need new technical skills to safely support and maintain next-generation aircraft.

Sustainable Aviation Fuel (SAF) is the most immediate driver of workforce change.¹⁷ With Qantas and major

corporate partners investing in a domestic SAF industry, production and supply chains are expected to expand, requiring specialised skills across refining, fuel quality assurance, logistics and airport fuel handling-operations.¹⁸ As SAF becomes more prevalent, aviation workers in operations, safety, maintenance and procurement will need updated training on storage, blending, handling procedures and environmental standards.



Climate Impacts

Extreme weather events, such as heatwaves, floods, storms and wildfires, are increasing in frequency and severity as global temperatures exceed critical thresholds. These events have potential to disrupt airport operations, damage infrastructure and increase the need for workforce resilience. More frequent extreme weather events are already affecting supply chains and community connectivity, requiring aviation workers to respond to operational disruptions, manage safety risks and support recovery efforts. In regional and remote areas, where aviation is essential for access to health, education and critical services, these disruptions compound existing workforce challenges.



Geopolitical Instability

Global and regional conflict, trade tensions and broader political volatility create significant uncertainty for Australia's Aviation industry. Disruption to global supply chains and weakening international cooperation affect the reliability and cost of aircraft parts, fuel and critical technologies, while also undermining industry confidence and long-term planning. These pressures can rapidly influence route structures and commercial viability. Long-haul carriers may need to re-route around conflict zones, increasing flight times, operational costs and complexity. A deterioration in global stability can also impact airlines and airport operations by reducing passenger numbers and commercial activity.

The current fuel crisis highlights the Aviation industry's vulnerability to geopolitical events. Financial pressure on employers is driving operational priority changes and impacting the workforce through increased stress and workload, and the potential for redeployment.

In times of crisis there is potential for the Australian Defence Force (ADF) to draw on the transport industry workforce to meet workforce expansion objectives. ADF exploration of ways to strengthen Australia's resilience in an environment of increasing instability has identified a need for cooperation among defence and civil groups to provide a deeper pool of potential personnel for military and civil defence tasks.¹⁹

¹² Randstad, [The Gen Z Workforce Blueprint: future focused, fast moving](#) [PDF], 2025.

¹³ J Nelson, [Bankstown airspace changes could hit GA hard, aero clubs warn](#), *Australian Aviation*, 13 March 2026.

¹⁴ General Aviation Advisory Network, [General Aviation Strategy 2024](#) [PDF], December 2023.

¹⁵ Australian Government, [Aviation White Paper: Towards 2050](#) [PDF], August 2024.

¹⁶ J Hines, [Stralis Aircraft developing cleaner and cheaper hydrogen-electric plane](#), ABC News website, 27 January 2025.

¹⁷ CSIRO-Boeing, [Sustainable Aviation Fuel State of Play: One year on from the Australian SAF Roadmap](#), CSIRO website, November 2024.

¹⁸ Qantas, [Partnering for the future of flying](#), Qantas Group website, n.d.

¹⁹ D Kilcullen, [Mobilisation and Australia's National Resilience](#), *Australian Army Journal*, Vol 20. No 3, Australian Army Research Centre, 2024.

Regional Issues and General Aviation

The Aviation industry is vital for maintaining regional connectivity, driving economic growth, and sustaining jobs across the country. While aviation employment has increased in major city and regional²⁰ areas driven by Air Transport Professionals (**Figure 1**), Travel Attendant employment has declined in both major cities (~6.8%) and regional areas (-14.4%). Despite this, regional passenger numbers continue to rise, reaching 25.19 million domestic passengers in the year to June 2025, up 1.5% on 2024.²¹

Figure 1: Aviation Occupation Trends, City vs Regional

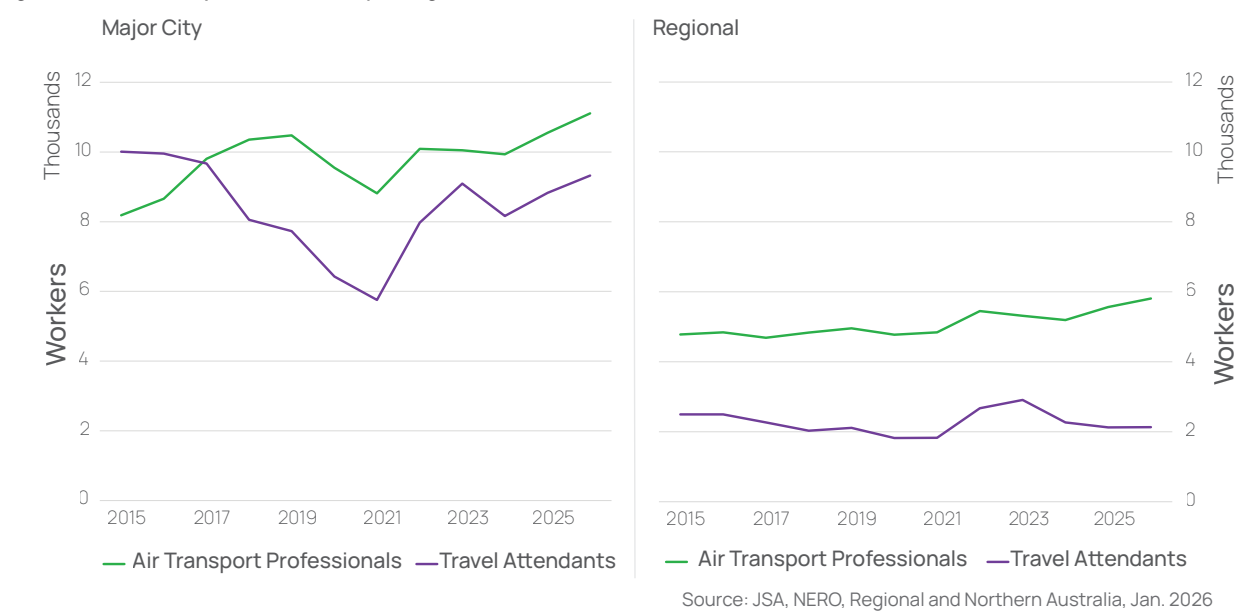


Table 1: Top Regions by Air Transport Professional Employment (2025)

Jurisdiction	Region	Workers
NSW	Illawarra	803
QLD	Gold Coast	556
QLD	Cairns	521
QLD	Sunshine Coast	482
NT	Darwin	320
NT	Northern Territory – Outback	308
NSW	Newcastle and Lake Macquarie	272
NSW	Southern Highlands and Shoalhaven	268
TAS	Greater Hobart	193
NSW	Hunter Valley exc Newcastle	135

Source: JSA NERO, February 2026

General Aviation (GA) supports **essential and community benefiting services** including air ambulance transport and medical supply delivery, law enforcement operations, environmental monitoring, scientific research, marine pilot transfers, and passenger and freight connections to remote communities. This breadth of activity underlines

the industry’s significance to regional and remote Australia where aviation provides critical access to health, education and essential services.

Recruitment is difficult in regional and remote areas due to limited local labour pools. Smaller and council-operated airports often struggle to recruit staff above Aerodrome Reporting Officer level. Where roles require management level capability and airport experience, few candidates have the required seniority and aviation specific expertise. This reflects a structural workforce gap, not a temporary shortage, and cannot be resolved through existing labour markets alone.

Employers report difficulty filling key roles such as airport managers, pilots and engineers, and **often compete with higher-paying industries**, such as mining. Regional and remote airports operate in thin markets with constrained revenue and fixed operational requirements, limiting their ability to offer competitive pay. Vacancies often force staff to cover multiple roles, increasing operational risk and reducing organisational resilience.

Limited training availability further constrains workforce development. Many regions lack aviation-specific training, requiring long-distance travel and significant cost to access training. Trainer and assessor shortages contribute to course cancellations, while poor internet

access and limited transport options restrict access to online and face-to-face programs. Workers who leave regional areas for training or early-career roles may not return, weakening the talent pipeline.

Skill shortages remain acute across GA. The shortage of Licensed Aircraft Maintenance Engineers (LAMEs) is particularly critical, but shortages also affect pilots, flight instructors, Aerodrome Reporting Officers, Work Safety Officers and other operational specialists. Geographic isolation and competition from larger operators make attraction and retention difficult in regional and remote areas, affecting service reliability and safety.²²

Beyond skills gaps, **regional and remote areas struggle to attract and retain workers** due to limited housing, higher living costs, reduced access to essential services, and fewer lifestyle amenities.²³ Stakeholders also note that low awareness of GA careers limits new entrants.

Pilot training is impacting the standard of pilots moving into airline roles. The lack of knowledge about pilot jobs, other than airlines, is leaving General Aviation with insufficient workers.”

[ISA Survey Respondent]

Structural and economic factors are increasing recruitment and retention pressures for GA and regional operators. QantasLink has reported that regional operations cost significantly more per seat than mainline domestic and international services due to higher airport and security charges, fuel costs and maintenance.²⁴ The Federal Government has launched a Productivity Commission inquiry into regional airfares, examining airport fees, barriers to entry on regional routes, pricing practices across the aviation supply chain, and government’s role in improving affordability and reliability.²⁵ A separate Senate inquiry is considering the aviation sector’s ability to deliver reliable and affordable services to rural, regional and remote communities.

The closure of regional staff bases illustrates that **workforce mobility is a major challenge in regional Australia**. The Flight Attendants’ Association of Australia (FAAA) notes that many long-serving regional staff are deeply tied to their communities and cannot easily relocate due to home ownership, family businesses and caring responsibilities.²⁶ Industry stakeholders also emphasise the value of experienced pilots and cabin crew in regional areas for maintaining stable and reliable services to and from the region.²⁷ As these experienced workers are least able to relocate, their loss from the industry can reduce skills, safety and workforce capability, especially where skilled cabin crew also serve as trainers.²⁸

Through submissions to the Senate Inquiry, industry stakeholders have identified **recommendations for addressing workforce issues**. These include the development of a national airport workforce strategy, establishing an apprenticeship or traineeship program for regulated and operational roles such as AROs, security and ground handling, expanding regional aviation training hubs, supporting targeted scholarships and cadetships, and streamlining migration and skills recognition pathways for aviation-critical roles.²⁹

The Inquiry submissions also provide insight into the **issues that are impacting regional communities and aviation stakeholders**. These include concerns about competitive imbalances that disadvantage small operators,³⁰ inadequate infrastructure and facilities that can strain emergency medical response in rural and remote communities,³¹ and structural inequities experienced by remote Indigenous communities due to disproportionately high airfares.³² Solutions recommended by stakeholders include a Regional Aviation Investment Fund that, among other objectives, would support initiatives to attract and retain qualified staff,³³ training for pilots and engineers, recognition of foreign qualifications and regional retention incentives³⁴ and a national aviation workforce strategy that includes regional training hubs.³⁵

²⁰ Note: Definitions of “regional” may vary between data sources, depending on the geographic boundaries, classifications, or business rules applied. As a result, regional figures may not be directly comparable across sources.

²¹ BITRE, [Domestic aviation activity: 2024–25](#) [PDF], Statistical Report, Australian Government, 2025.

²² Regional Aviation Association of Australia, [What if you couldn’t fly?](#) [PDF], March 2025.

²³ National Housing Supply and Affordability Council, [State of the Housing System 2024](#) [PDF], Australian Government, 2024.

²⁴ QantasLink, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 3, 2025.

²⁵ Productivity Commission, Determinants of regional airfares: [Call for submissions](#) [PDF], Australian Government, December 2025.

²⁶ FAAA, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 6, 2025.

²⁷ Canberra Airport, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 4, 2025.

²⁸ FAAA, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 6, 2025.

²⁹ Australian Airports Association, [State of Australia’s Aviation Sector: Affordable Services to Rural, Regional & Remote Communities](#), Submission No. 27, Submissions – Parliament of Australia, 2026.

³⁰ Aviation Logistics Group, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 28, Submissions – Parliament of Australia, 2026.

³¹ Royal Flying Doctor Service, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 43, Submissions – Parliament of Australia, 2025.

³² Arnhem Land Progress Aboriginal Corporation, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 51, Submissions – Parliament of Australia, 2025.

³³ Regional Aviation Association of Australia, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 148, Submissions – Parliament of Australia, 2026.

³⁴ Australian Helicopter Industry Association, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 172, Submissions – Parliament of Australia, 2026.

³⁵ Queensland Tourism Industry Council, [Submission to the Senate Rural and Regional Affairs and Transport References Committee](#), Submission No. 83, Submissions – Parliament of Australia, 2025.

Occupational Snapshot

Link to ISA
Data Dashboard



OCCUPATIONS IN SHORTAGE

Aeroplane Pilot



Air Traffic
Controller



Air Transport
Professionals nec



Flight Attendant
(Regional)



Flying Instructor



Helicopter Pilot

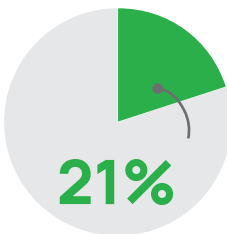


FEMALE (%)
35.8%

HIGHEST MEDIAN AGE
Air Transport Professionals

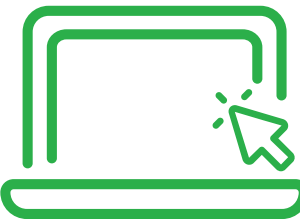
40 YEARS OLD

PART-TIME

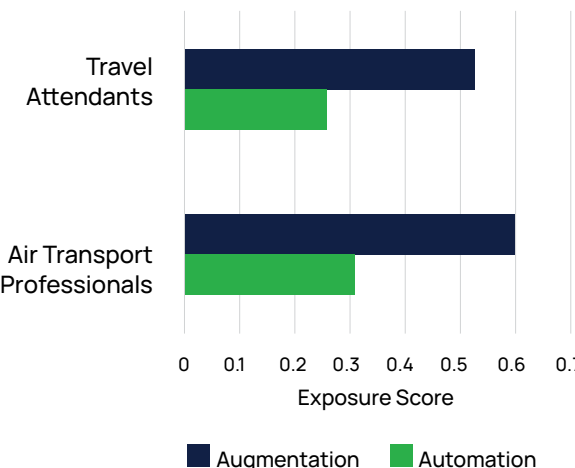


ONLINE JOB
AD GROWTH
2020-2025

210%



AI AUTOMATION/AUGMENTATION EXPOSURE [†]



WORKERS IN AVIATION ROLES (2025)

25,490



WORKERS IN AVIATION ROLES (2030)

26,810

LOWEST VACANCY RATE (%)

Air Transport Professionals

0.65%

[†]ISA exposure scores estimate the potential for AI to augment/automate tasks in each occupation.

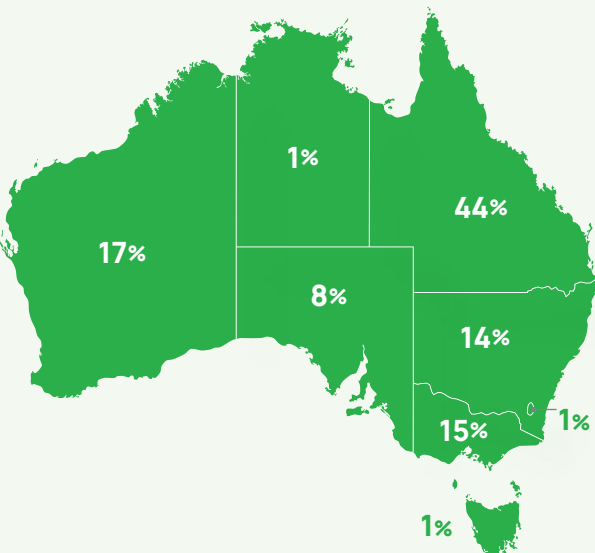
Refer to page 41 for sources

Training Highlights

Link to ISA
Data Dashboard



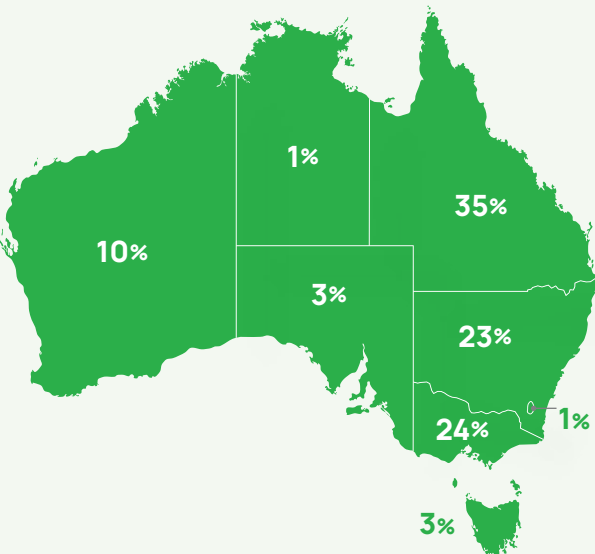
QUALIFICATION ENROLMENTS BY STATE%



TOTAL QUALIFICATION ENROLMENTS 2024

7,148

RTO MAP (EXPLICIT SCOPE)



VETiS STUDENT COUNT

1,686

RTOs WITH SCOPE TO
DELIVER AVIATION QUALS

88

TRAINING PACKAGE SUMMARY



20 qualifications

34 Skill Sets

220 Units of Competency



HIGHER EDUCATION
ENROLMENTS (2023)

2,182

PARTICIPATION IN TRAINING



Female
27%



First Nations
4.1%



Disability
5.3%

TOP 5 QUALIFICATIONS BY ENROLMENTS (2024)

Cert II in Transport Security Protection	2,285
Cert III in Aviation (Remote Pilot)	2,225
Dip of Aviation (Commercial Pilot Licence - Aeroplane)	1,068
Dip of Aviation (Instrument Rating)	608
Cert III in Aviation (Cabin Crew)	341



APPRENTICESHIPS/
TRAINEESHIPS
(% of AVI enrolments)

1.0%



HIGHEST GRADUATE
EMPLOYMENT RATE
(2020-2021)

Cert II in Transport
Security Protection

97%

Refer to page 41 for sources

Progress on Industry Priorities

The 2025 Workforce Plan identified **key challenges and drivers** that are impacting the aviation workforce. Further consultation, research and analysis have confirmed the ongoing relevance of these issues for workforce planning. ISA's 2025 stakeholder engagement confirmed an additional challenge relating to requirements for Advanced Air Mobility (AAM) and autonomous or uncrewed aircrafts and their need for new operational, training and regulatory framework.

Key challenges and drivers influence workforce requirements in four broad and interconnected ways.

Key Challenges and Drivers identified in 2025 Workforce Plan

Recruitment and funding challenges for General Aviation

Key Aviation roles face ongoing shortages

Diversity imbalance hinders industry growth

National coordination is essential to build Australia's Aviation workforce

impacts the supply and demand for workers and points to a need for ...

High cost of training is a major barrier

Qualifications need better alignment with industry needs and regulations

influences the skills of workers and new entrants and points to a need for ...

Decarbonisation efforts demand new skills

New skills are needed for emerging technologies

Vocational training is critical for Australia's growing Space industry

drives future industry skill requirements and points to a need for ...

AAM and autonomous or uncrewed aircraft require new operational training and regulatory environments*

affects the nature of the Australian Aviation industry and points to a need for ...

Industry Priorities for Workforce Planning and Development

1 Access to a Skilled Workforce

2 Availability of Training

3 Preparedness for Change

4 Capability Development for Uncrewed Systems

*This challenge was identified and confirmed through ISA stakeholder engagement during 2025.

1

Access to a Skilled Workforce

The 2025 Workforce Plan reported that key aviation roles face ongoing shortages, and national coordination is essential to build Australia's aviation workforce. Diversity imbalance was identified as hindering growth across the industry and specific recruitment and funding challenges were identified for General Aviation.

Occupational Shortages

Aviation industry stakeholders report that shortages in key occupations are impacting industry operations. Critical **shortages of pilots, flight instructors, air traffic controllers and Licensed Aircraft Maintenance Engineers (LAMEs)** are being felt across the country.

Table 2: Aviation Occupations in Shortage 2025

Occupation title	AUS	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Aeroplane Pilot	S	S	S	S	S	S	S	S	S
Air Traffic Controller	S	S	S	S	S	S	S	S	S
Air Transport Professionals nec ³⁶	S	S	S	S	S	S	S	S	S
Aircraft Baggage Handler and Ground Crew	NS	NS	NS	S	NS	NS	NS	NS	S
Flight Attendant	R	S	R	R	R	R	R	R	R
Flight Instructor	S	S	S	NS	S	S	NS	S	S
Helicopter Pilot	S	S	S	S	S	S	S	S	S
Security Screening Officer	NS	NS	S	S	NS	S	NS	NS	NS

Source: Occupational Shortage List (OSCA)
S = Shortage, R = Regional Shortage, NS = No Shortage

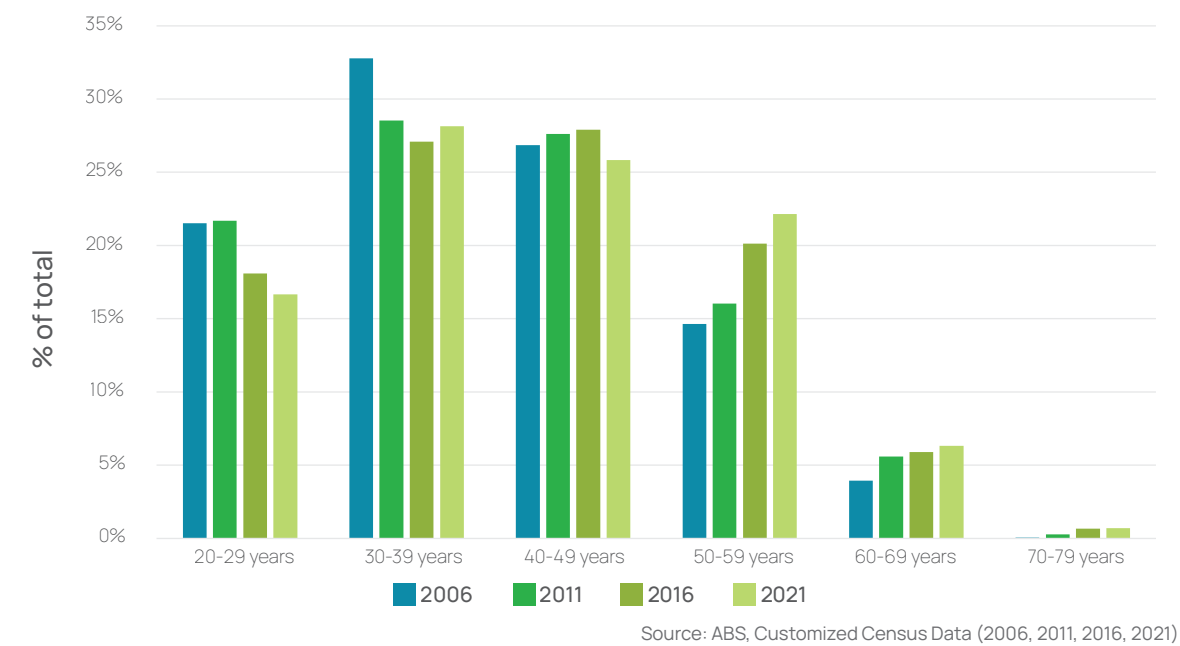
Persistent and structural shortages in airport operational and technical roles are also being reported by industry stakeholders. These roles are regulated and safety critical, and often require a combination of operational, technical and compliance expertise. Although they are essential to safe and continuous aviation operations, there is an undersupply of suitably skilled workers. The shortage is particularly acute in regional and remote areas where labour markets are small and training pathways are limited.

The Aviation industry has an ageing workforce, which is resulting in a **looming retirement cliff** for pilots (**Figure 2**) and engineers. Declining retention rates for pilots have led to significant mid-career attrition, reflecting a shift away from the historically typical 10 to 15-year tenure in the industry.



³⁶ Not elsewhere classified (including Aircraft Navigator, Airworthiness Inspector and Hot Air Balloon Pilot).

Figure 2: Long-Term Trends in the Ageing Profile of Aeroplane Pilots



Australian aviation operators face **global competition for skilled LAMEs** as aircraft fleets are expanding and new technologies are entering service.³⁷ Australian employers are calling for faster recognition of foreign aircraft maintenance licences because local training is not producing enough engineers to meet demand. The Civil Aviation Safety Authority (CASA) has taken steps towards recognition of overseas-licensed LAMEs and will continue to progress a solution in 2026.³⁸ Industry stakeholders are keen to see accelerated implementation of this initiative to supplement the Australian workforce and reduce the need to send aircraft overseas for maintenance.

Another recent CASA reform saw the introduction of **modular licensing for aircraft maintenance engineers**.³⁹ Modular licensing provides a faster and more flexible pathway that allows individuals to expand their licence scope over time as they gain experience and pass required examinations. In 2025, the Northern Territory government launched Australia's first government-funded CASA Part 66 Modular Licensing Program.⁴⁰

Through ISA consultations, industry stakeholders have reported that the **challenges with the availability of air traffic controllers** have resulted in reduced traffic management capacity, which impacted flight schedules. Reporting from Airservices Australia indicates that service variations at air traffic control towers have been lower than previous years but ongoing resilience gaps are acknowledged.⁴¹ Airservices Australia forecasts that 100 air traffic controller trainees will be recruited over the 2025–26 financial year.⁴²

Shortages of baggage handlers, ground crew, flight attendants, flight instructors and security screening officers are also present in some regional areas (Table 2). Shortages in these areas strain airport operations and capacity to maintain optimal safety and security for passengers.



Working within aerodromes, we often encounter skill shortages or gaps caused by various challenges in Ground Operations. These issues inevitably impact aerodrome safety and compliance, largely due to insufficient information or inconsistent reporting of aviation-related incidents.”

[ISA Survey Respondent]



Non-technical skills are becoming increasingly important in flight training. Using scenario-based exercises that remove the flying task helps students focus on communication, decision-making, leadership, situational awareness and workload management. Training models show that when learners talk through their reasoning during scenarios, it strengthens shared understanding and improves crew coordination. Early introduction of decision-making tools gives students a clearer way to assess changing situations. Research has shown that embedding this style of training from the start builds more resilient, reflective pilots and provides a safe environment to develop essential behavioural competencies for complex operations.⁴³

Workforce shortages continue in regulated and operational airport roles, including Aerodrome Reporting Officers, security screeners, ground handling staff and maintenance personnel, particularly in regional and remote locations.⁴⁴ Yet, despite these critical workforce needs, airports owned by local government are excluded from government wage subsidy apprenticeship programs. In a submission to the Senate Inquiry on the State of Australia's Aviation Sector, the Australian Airports Association (AAA) recommended the creation of a bespoke national airport apprenticeship program to support career pathways into regulated and operational roles.⁴⁵ The AAA argues that a structured national apprenticeship model would deliver credentials that are recognised across employers and regions, increase value to local communities, attract more people to the aviation workforce and support stable, long-term career pathways that are essential for maintaining connectivity and essential services.

Attraction and Retention

Persistent occupational shortages are linked to **deteriorating working conditions** for those in the industry. Stakeholders report that poor working conditions in some areas of aviation have reduced the attractiveness of the industry. Challenges are especially acute in occupations involving long working hours, outdoor work in all weather conditions, physically demanding work, shift work and work far from home.⁴⁶ Salaries and working conditions for aviation roles are seen as relatively less competitive than other industries.

Worker wellbeing is impacted by **inflexible scheduling and fatigue risks**, especially for Cabin Crew and Ground Operations. A 2025 survey of aviation workers conducted by the Transport Workers' Union found that 87% of respondents had been rushed or pressured to work unsafely and 60% reported that their safety was compromised by high turnover of staff.⁴⁷

“Crew shortages mean the pilots are required to work more fatiguing shifts than in the past.”
[ISA Survey Respondent]

³⁷ Aero Professional, *Aircraft Engineer Shortage: Threat to Aviation in 2025*, 13 August 2025.

³⁸ Civil Aviation Safety Authority, *Recognition of foreign aircraft maintenance engineer licences from recognised States – (CD 2508MS)*, CASA website, 17 December 2025.

³⁹ Civil Aviation Safety Authority, *Modular licensing for aircraft maintenance engineers*, 2024.

⁴⁰ Aviation Australia, *Now Available: Modular Licensing Pathways*, Aviation Australia website, July 2025.

⁴¹ Airservices Australia, *Airservices Australia Releases September Australian Aviation Network Overview*, 15 October 2025.

⁴² Airservices Australia, *Corporate Plan 2025–26* [PDF], 2025, p 15.

⁴³ A Fleming, *The System, Techniques, Technologies and Methods of Instruction Employed in Pilot Training*, Report by Churchill Fellow 2024, Winston Churchill Trust website, 2025.

⁴⁴ Australian Airports Association, *Submission to the Senate Rural and Regional Affairs and Transport References Committee*, Submission No. 27, 2026.

⁴⁵ Australian Airports Association, *Submission to the Senate Rural and Regional Affairs and Transport References Committee*, Submission No. 27, 2026.

⁴⁶ Australian Government, *Aviation White Paper: Towards 2050* [PDF], 2024, p 94.

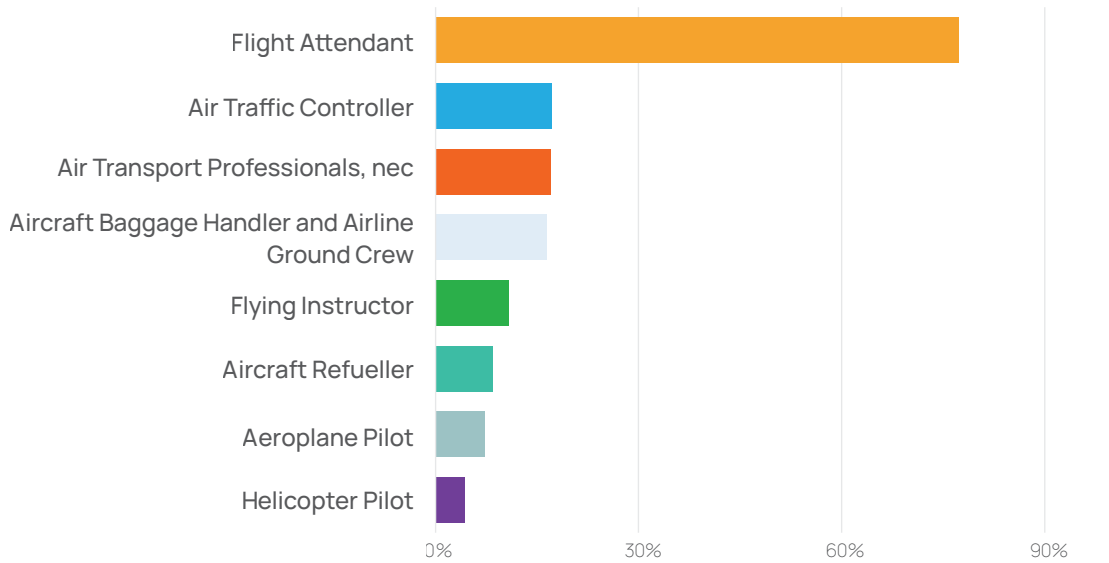
⁴⁷ Transport Workers' Union, *Aviation Industry Survey* [PDF], 2025.

A national survey conducted for the Flight Attendants' Association of Australia in 2025 found that **unpredictable rosters impact worker wellbeing** by limiting flight attendants' access to good nutrition, and contributing to fatigue, illness and injury. Survey respondents felt that the complexity of their role is not reflected in their pay.⁴⁸ More diverse passenger demographics, larger aircraft and reduced crew to passenger ratios have transformed the Flight Attendant role and require an expanded repertoire of skills. The work increasingly involves dealing with passenger noncompliance and aggression and managing exposure to physical, environmental and psychosocial harms.⁴⁹

Industry stakeholders have reported that **physical injuries and age-related issues accelerate retirement**, particularly among flight attendants and ground crew. This trend is accentuated by a siloed industry structure that creates barriers to re-deploying existing workers into adjacent roles. Respondents to an ISA survey overwhelmingly agreed that pathways between roles in the Aviation industry are not clear or supported. ISA stakeholders have highlighted the importance of improving airport safety through training and raising awareness about compliance with regulations.

Many occupations in the Aviation industry are **highly male dominated**. While men comprise around two thirds of the aviation workforce, the gender imbalance is significantly higher in many operational and technical roles (**Figure 3**). First Nations people and people from non-English speaking backgrounds are also poorly represented.⁵⁰ Workforce diversity has been identified as a key focus for Western Sydney International (WSI) Airport. Measurable targets are embedded in WSI's Workforce Action Plan including an objective to maintain gender balance in leadership positions.⁵¹

Figure 3: Proportion of Females by Aviation Occupation



Source: ABS, Customized Census Data (2021)

⁴⁸ N Cortis, and M Blaxland, *Australia's Flight Attendant Workforce in 2025*. Sydney: UNSW Social Policy Research Centre, 2025.

⁴⁹ N Cortis, and M Blaxland, *Australia's Flight Attendant Workforce in 2025*. Sydney: UNSW Social Policy Research Centre, 2025.

⁵⁰ Australian Government, *Aviation White Paper: Towards 2050* [PDF], 2024.

⁵¹ Western Sydney International Airport, *Corporate Plan 2025-26* [PDF], 2025, p 31.

Industry stakeholders report that **younger people lack awareness of opportunities** in the Aviation industry. There are industry-led efforts to promote aviation careers. However, without a nationally coordinated approach, outreach efforts remain fragmented, and the industry lags behind others in engaging secondary school and tertiary students.⁵²

“Aviation is an industry that's very unique and doesn't suit everyone.”
[ISA Survey Respondent]



ISA-led Actions

Cabin Crew Skills Recognition

ISA is investigating why the Certificate III in Aviation (Cabin Crew) is not widely recognised by industry and will identify gaps between current airline practices and the qualification's content. With airlines experiencing a national shortage of flight attendants, the project will consult major carriers and training providers to understand barriers to adoption and recommend revisions that better reflect industry needs. The findings will inform updates to improve job mobility, strengthen workforce development, and support greater recognition of the qualification in schools and across the aviation sector.



Improving Career Information

Working in collaboration with relevant partners, ISA will lead a campaign to redefine the image of the transport supply chain as a vital sector that underpins Australia's economic prosperity and quality of life. By promoting the benefits of working in the sector, the campaign aims to support long-term workforce growth and retention. This project will seek to leverage existing workforce development initiatives where appropriate.



Increasing Diversity across Transport Supply Chain Industries

This project is building a comprehensive understanding of the current diversity and inclusion landscape across the transport supply chain industries to inform scalable solutions in a second phase. It responds to fragmented diversity and inclusion efforts and the persistent underrepresentation of women, First Nations peoples, CALD communities, neurodiverse individuals and people with disabilities. By analysing demographics, reviewing existing initiatives, mapping gaps, and consolidating tools and resources, the project will deliver an environmental scan and recommendations that support a more inclusive, resilient and future focused workforce.



Skilled Migration

This activity will examine existing skilled migration pathways and policy settings for transport supply chain occupations to assess how well they meet the current and emerging skill needs of industry. The work will involve analysis of available data and targeted consultation with industry, unions and government stakeholders. It will consider issues raised by stakeholders, including the responsiveness and cost of existing processes, and the extent to which current settings ensure that migrant workers have the skills, experience, and safety awareness required to perform effectively in Australian workplaces.



Contact Us

⁵² Australian Government, *Aviation White Paper: Towards 2050* [PDF], 2024, p 93.

Related Initiatives

Australian Government: Women in the Aviation Industry Initiative

The Women in the Aviation Industry Initiative was established by the Australian Government in 2019 to encourage women to enter and remain in the industry. Through the initiative, the government partners with industry to fund projects that help women to stay in the sector and transform workplace culture to ensure greater inclusivity and diversity.



Australian Government: Aviation White Paper: Towards 2050

The Aviation White Paper sets out the Australian Government's long-term vision for aviation and the policy initiatives that Australian Government will adopt to guide the next generation of growth and innovation in the sector to 2050.



CASA: General Aviation Workplan

The refreshed General Aviation Workplan 2025 builds on the foundation laid by the original 2022 plan. The workplan focuses on improving pilot licensing rules, streamlining airworthiness and maintenance, simplifying health arrangements, increasing sport and recreational opportunities and driving continuous improvement across the sector. The updated workplan is a key commitment in the Australian Government's 2024 Aviation White Paper.



CASA: Modular Licensing for Aircraft Maintenance Engineers

CASA has introduced a flexible pathway that enables aircraft maintenance engineers to more quickly obtain a Part 66 licence with limitations and progressively expand its scope through added experience and exams. The modular licensing system offers flexibility to build skills and specialisations gradually and helps maintenance organisations tailor licence scope to operational needs.



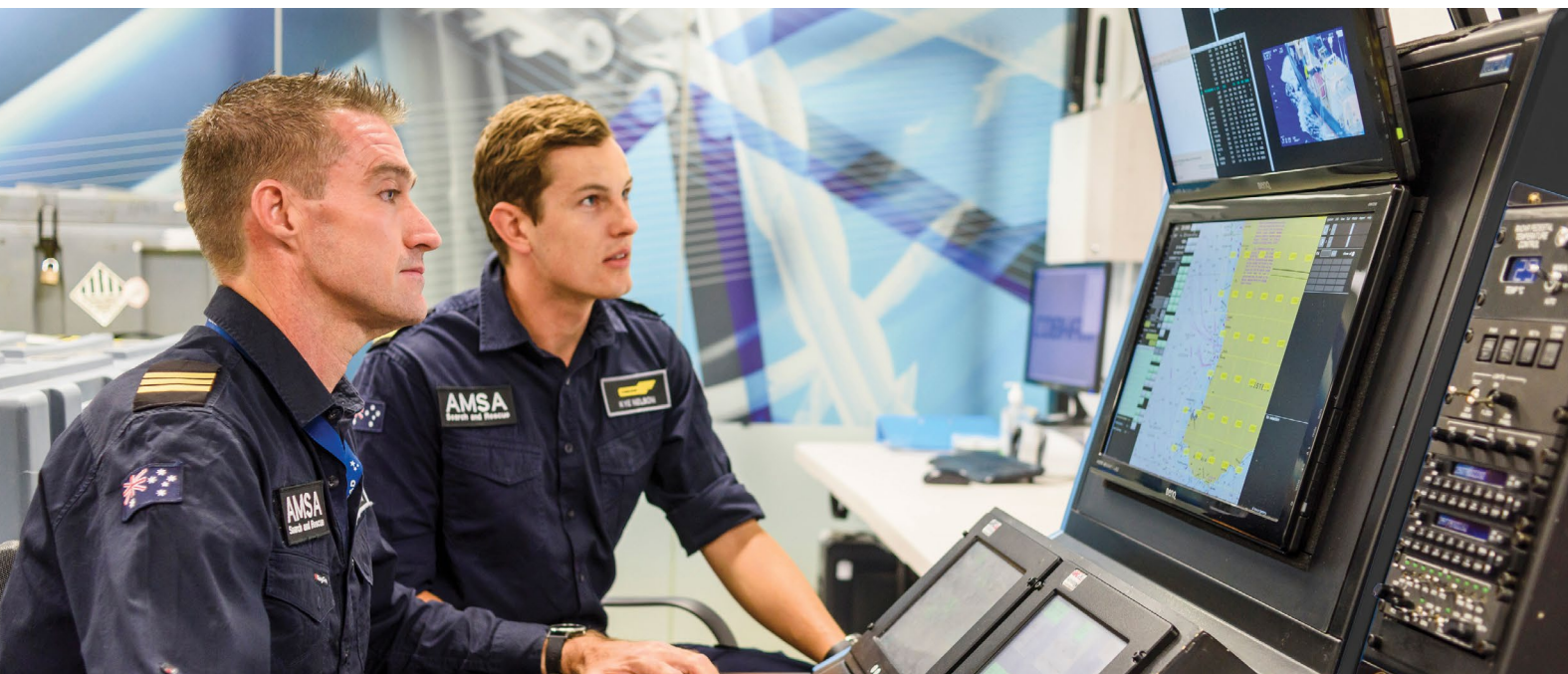
CASA: Seeking to Recognise Foreign Aircraft Maintenance Licences

CASA is developing a framework for recognising foreign States for Part 66 of the Civil Aviation Safety Regulations 1998 (CASR) and an associated amendment to the Part 66 Manual of Standards (MOS). This would enable licence holders from specific countries to have their aircraft maintenance licence recognised in Australia. Public consultation was held in 2025, and CASA will continue to engage with industry bodies and unions to progress the proposal.

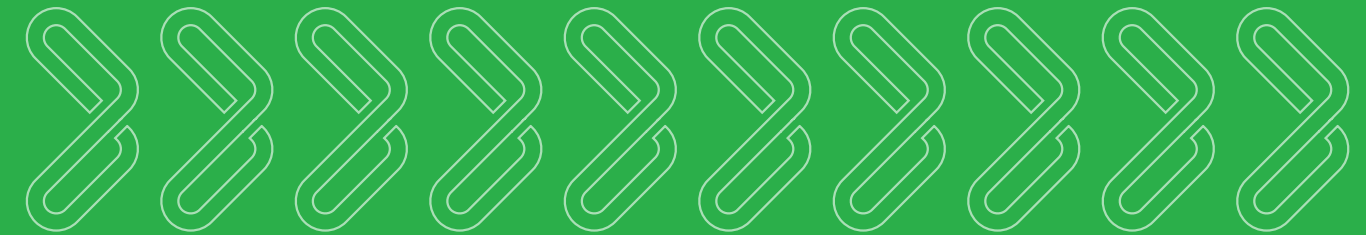


Australian Government: Gender Equity Charter for Australian Aviation

Through Initiative 20 of the Aviation White Paper, the Australian Government committed to establish a Gender Equity Charter for Australian Aviation, in partnership with industry and unions. The draft Gender Equity Charter seeks to increase employment targets for women in senior and operational aviation roles, reduce gender pay gaps, and improve policies and practices to support and promote inclusive workplace culture across aviation.



Launch and Accelerate a Career in Aviation Lee Jarvis' Journey



Lee Jarvis' journey from classroom teacher to Search and Rescue Aircrew member at Leidos Australia shows the transformative power of reskilling with industry-backed qualifications. After stepping away from flying as a teenager due to financial barriers, he returned to aviation more than a decade later, earning his Certificate III in Airborne Operations and contributing to national search and rescue missions.

The Certificate III and IV in Airborne Operations were updated in 2025 through extensive collaboration between ISA, industry partners, and training providers. These nationally accredited qualifications deliver the capability, skills and consistency needed to launch and advance careers across aviation. Leidos Australia was the first organisation to issue the new qualifications, affirming the company's commitment to investing in the development of highly skilled non-pilot aviation professionals.

"Stepping outside my comfort zone and leaving the classroom for the Challenger 604 was a huge step but one I'll always be proud of," Lee says.



Highlights of Lee's experience

- Achieved a nationally recognised qualification that validates his expertise and opens future career pathways in aviation.
- Leveraged transferable skills from education to excel in a high-pressure aviation environment.
- Gained hands-on experience delivering life-saving supplies and responding to urgent callouts nationwide.

More success stories: [Elevating Australia's Aviation Workforce Through Airborne Operations Qualifications](#)

The 2025 Workforce Plan reported that the high cost of training is a major barrier for the Aviation industry and that qualifications need better alignment with industry needs and regulations.

Cost of Training

The high cost of pilot training pathways is a **deterrent to industry entry** for many individuals. Course costs of more than \$90,000 are usual for the Diploma of Aviation (Commercial Pilot Licence – Aeroplane). While some learners have access to VET Student Loans, this is not available for all courses or through all providers. A student loan is also a significant burden for prospective learners, especially when they may already have a HECS/HELP debt from previous VET or HE study.

For RTOs, the cost of providing training is exacerbated by the previously noted **shortage of qualified and experienced instructors** (Table 3). A stint as a flight instructor has become a common method for newly qualified pilots to gain experience before taking their next career step. As noted by one ISA survey respondent, this has led to a significant reduction in the general experience of the group of instructors across the country.

Table 3: Flight Instructor Occupation Shortage Status by Jurisdiction (2021–2025)

Jurisdiction	2021	2022	2023	2024	2025
AUS	NS	NS	S	S	S
ACT	NS	NS	NS	S	S
NSW	NS	NS	S	NS	S
NT	NS	NS	NS	NS	NS
QLD	NS	NS	S	S	S
SA	NS	NS	S	S	S
TAS	NS	NS	NS	S	NS
VIC	NS	NS	S	S	S
WA	NS	S	S	S	S

Source: Occupation Shortage List (2021–2025)
S = Shortage, R = Regional Shortage, NS = No Shortage



The short version is brand new instructors are teaching students what they were taught a couple of weeks ago.”

[ISA Survey Respondent]

Industry stakeholders have suggested that faster, more flexible delivery **models are needed to reduce the cost of training** delivery. Virtual reality (VR), simulation and augmented reality (AR) are being tested and implemented to improve the accessibility and efficiency of training delivery for some aviation roles. Some stakeholders are keen to explore the potential of these technologies to reduce the cost of pilot training, though CASA does not currently recognise the use of simulation for required flight hours. Recent research into pilot training has found that technology, whether simulation, VR/AR, digital learning platforms, or data-driven tools provide the greatest benefit when embedded purposefully within a coherent training framework.⁵³

Beyond pilot training, **operational disruptions impact the industry's training capacity**. The shortage of maintenance engineers can delay the availability of aircraft for training. Additionally, shortages of air traffic controllers can result in lack of capability for instrument training, and shortages in airport operational and technical roles increase safety risks. The snowballing effect of skill shortages throughout the Aviation industry has significant implications for the cost and availability of training for many roles.



Qualification Alignment

Alignment between VET qualifications and licensing requirements is a mechanism for establishing a uniform and reliable basis for recognising individual competency and professionalism. In consultations with ISA, industry stakeholders have identified several areas where vocational qualifications need better alignment with CASA requirements and industry needs.

- CASA's MoS 65 and ATC qualifications need alignment with ICAO standards.
- Certificate III in Aviation (Aerodrome Operations) needs alignment with Part 139 of the Civil Aviation Safety Regulations (CASR).

VET qualifications also **need to reflect industry operational requirements**. ISA consultation with industry stakeholders indicated that some operators are using

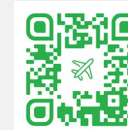
in-house training and moving to alternative providers rather than nationally accredited training. When VET qualifications do not reflect current industry practice, there is a risk that in-house training will be preferred in the short term. However, this ultimately results in inconsistent skill development across the industry and reduced workforce mobility. Stakeholders have identified a need to update qualifications to accommodate disability-handling protocols and inclusive practices.

The Australian Airports Association has identified the need for **nationally consistent training pathways** for airport operations roles. Expanding the availability of training for these roles in regional Australia is essential for building workforce capability. Apprenticeship models could be considered to support entry into airport operations roles, while progression into senior roles requires opportunities for targeted upskilling pathways.

ISA-led Actions

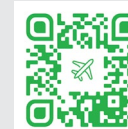
Airborne Operations (Rescue)

New Airborne Operations qualifications have been developed to strengthen workforce development and create clearer career pathways for air crew across aviation, emergency services, border protection and defence. Replacing the previous Rescue Crew Officer and Air Crew Officer qualifications, the updated Certificate III and IV in Airborne Operations are designed to be more inclusive of varied operational roles and aircraft types. Developed with industry, CASA and subject matter experts, ISA also updated associated Skill Sets and Units of Competency. The new qualifications will expand access to nationally accredited training for crew in both rotary and fixed wing environments, enhancing mobility across sectors.



Transport Security Protection

The Certificate II in Transport Security Protection has been updated to strengthen training outcomes and improve mobility for security screening officers across aviation, maritime and air cargo sectors. The revised qualification streamlines delivery, reduces training costs for employers and ensures screening officers gain the skills required to meet regulatory obligations set by the Department of Home Affairs (DoHA). Updated units reflect current technologies and cover essential screening functions, supporting compliance and operational readiness. Developed in consultation with industry, DoHA and subject matter experts, the updated qualification and its associated Skill Sets and Units of Competency will enhance workforce capability across multiple transport security environments.



Defence Flight Instructor

ISA is investigating the barriers that prevent Defence flight instructors from transitioning smoothly into civil aviation, and will develop recommendations and a potential framework for CASA to consider. With the Aviation industry facing a critical shortage of civilian flight instructors, the project will examine why highly skilled Defence instructors must undergo substantial additional training and assessment to meet CASA requirements. Through consultation with CASA, DASA and industry experts, the project will identify recognition gaps, explore opportunities to streamline transition pathways, and assess whether similar approaches could apply to other Defence aviation roles. The project will deliver recommendations and a proposed framework to support improved transferability.



VET Workforce Project

The aim of this project is to grow and support a secure and sustainable VET workforce. Stream 1 investigated, identified and validated VET workforce challenges and issues. In Stream 2, ISA explored industry-led responses by collaborating with stakeholders across aviation, maritime, rail and transport and logistics to develop resources and identify practical pathways to attract, develop and retain a diverse and capable VET workforce. In Stream 3, promising initiatives were developed and piloted. ISA will share outcomes and key insights from the project with the transport supply chain industries through ongoing engagement.



⁵³ A Fleming, *The System, Techniques, Technologies and Methods of Instruction Employed in Pilot Training*, Report by Churchill Fellow 2024, Winston Churchill Trust website, 2025.

Diploma of Aviation – Flight Instructor

The Diploma of Aviation (Flight Instructor) is being reviewed and updated to help address the national shortage of flight instructors, which is limiting pilot training capacity. In consultation with the aviation training sector and CASA, the project will ensure the qualification reflects current industry practices and aligns more closely with CASA licensing requirements to improve consistency, reduce learner costs and strengthen industry recognition. The update will also modernise core and elective Training and Assessment units to reflect contemporary educational practice. The project will revise the qualification, six AVI units and three associated Skill Sets to better support the development of future instructors.



Ground Operations Skills Analysis

ISA is addressing skills shortages in aviation ground operations by analysing current practices, technologies and workforce gaps to inform updates to aviation qualifications. With roles such as baggage handlers, ramp operators and customer service agents increasingly hard to fill, ISA is examining core tasks and competencies, assessing the relevance of existing training products and identifying where nationally recognised qualifications can better support workforce needs. Through industry consultation, the project will recommend changes that strengthen training relevance, improve qualification uptake, create clearer career pathways and help attract new talent, particularly younger workers, into ground operations.



Flight Instructor Higher Apprenticeship/Traineeship Feasibility Study

ISA is assessing the feasibility of creating a structured higher apprenticeship or traineeship model for flight instructors to address Australia's critical instructor shortage and improve long-term workforce sustainability. With no national progression framework currently aligned to CASA's instructor ratings, the study will explore how a formal pathway could reduce training costs, strengthen career development and improve retention. The project will examine how existing VET qualifications, including the Diploma of Aviation (Flight Instructor) and Instrument Rating, could be integrated into a tiered model. It will deliver recommendations and a proposed framework for consideration by industry, CASA and government.



Improving Regional Training Delivery

ISA will explore and develop strategies to address the limited access to training in regional areas, including how these considerations can be incorporated into other projects to improve training implementation.



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Airport Operations Training Package Review (Cabin Crew, Ground Ops and Aerodrome Operations)

This project will implement findings from the Cabin Crew, Ground Operations Skills Gap Analysis and CASA Part 139 regulatory update to review and update Ground Operations, Cabin Crew and Aerodrome Operations qualifications. It aims to better align the qualifications with current airline and airport practices, evolving industry needs, and workforce expectations. This will be supported by a coordinated communications approach to support the promotion and implementation of the updated training products. The review is intended to support broader uptake of the qualifications across the aviation sector, strengthen training pathways and enable the development of a more skilled, job ready aviation workforce.



Contact Us

Training Outcomes Monitoring Framework

In this project, the JSC will design, test and establish a Training Outcomes Monitoring Framework to track learner, employer, RTO and training product outcomes delivered by the national VET system. The project will strengthen evidence-based continuous improvement by identifying low uptake products, delivery quality issues and examples of best practice. Key outcomes include improved training responsiveness, stronger employer and learner insights, and an embedded training outcome monitoring function.



Contact Us

Stakeholder Consultation

ISA will conduct targeted consultation activities to inform the development of future strategies or initiatives that support the aviation workforce. Stakeholder engagement will explore support for LAMEs self-study pathway, and national co-ordination of training.



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Related Initiatives

CSIRO: Aviators in Schools

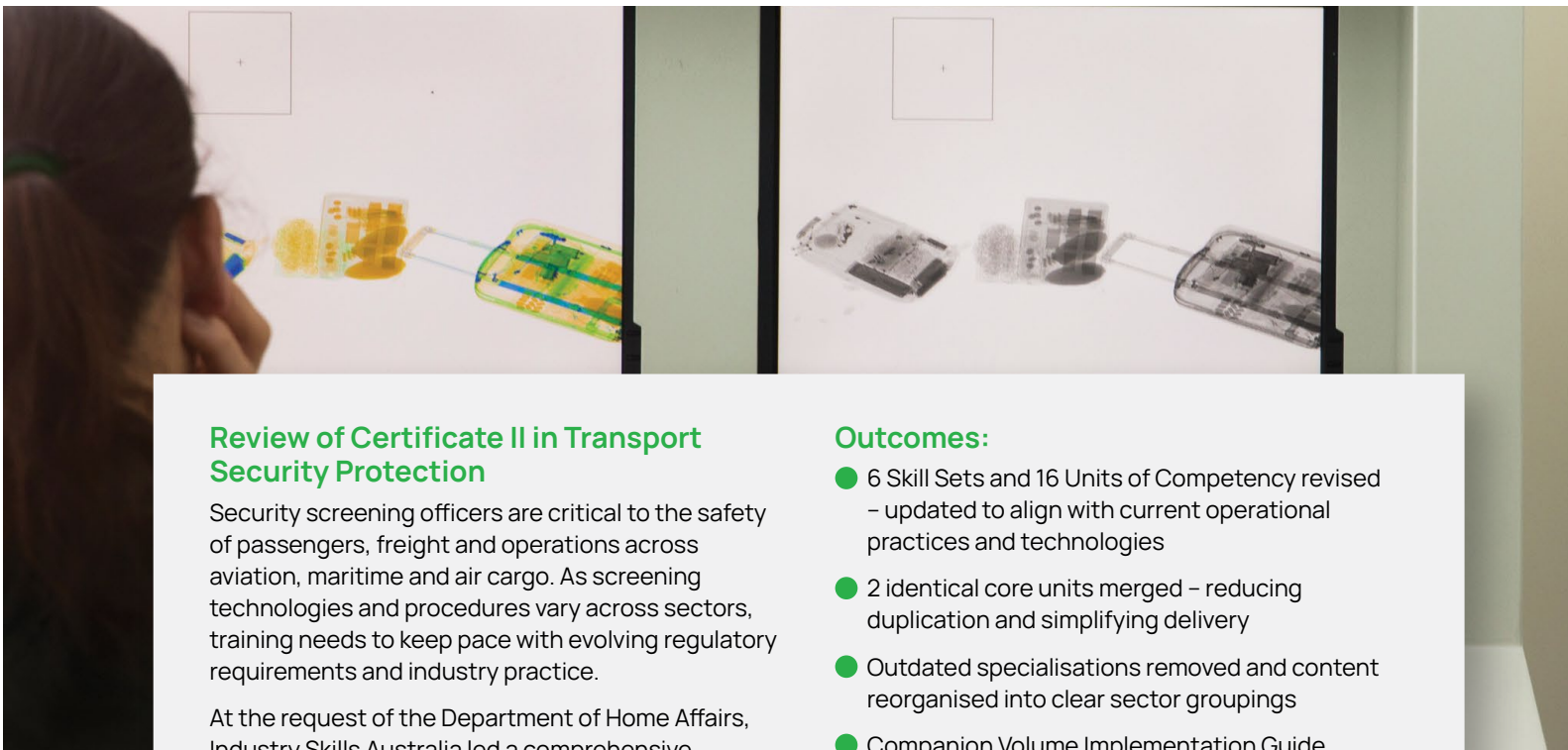
The Aviators in Schools program connects teachers across Australia with aviation professionals through flexible, collaborative partnerships that bring real-world insights into the classroom. The program is designed to build students' capabilities in science, technology, engineering and maths (STEM) and inspire them with the possibilities of diverse career pathways in aviation and aerospace.



New Resource

ISA Trainer ToolBox

This new online learning hub provides free professional development for transport supply chain trainers and assessors. The Trainer ToolBox is a pilot initiative that includes interactive training modules, video seminars and a live forum community of practice.



Review of Certificate II in Transport Security Protection

Security screening officers are critical to the safety of passengers, freight and operations across aviation, maritime and air cargo. As screening technologies and procedures vary across sectors, training needs to keep pace with evolving regulatory requirements and industry practice.

At the request of the Department of Home Affairs, Industry Skills Australia led a comprehensive review of the Certificate II in Transport Security Protection, the mandatory qualification for all security screeners. The review responded to regulatory changes, current industry practices and advancements in screening technologies.

A technical committee with representatives from aviation, maritime and air cargo provided sector expertise and technical guidance. A national consultation program ensured that industry feedback was incorporated into the review.

Outcomes:

- 6 Skill Sets and 16 Units of Competency revised – updated to align with current operational practices and technologies
- 2 identical core units merged – reducing duplication and simplifying delivery
- Outdated specialisations removed and content reorganised into clear sector groupings
- Companion Volume Implementation Guide refreshed to reflect the changes.

The revised Certificate II in Transport Security Protection delivers a more streamlined, flexible and fit-for-purpose qualification for security screening officers, which addresses long-standing delivery challenges for employers and training providers, while strengthening workforce capability and mobility across all screening environments.

More details: [Transport Security Protection - Completed](#)



3 Preparedness for Change

The 2025 Workforce Plan reported that new skills are needed for emerging technologies and sustainable fuels to support the Aviation industry. Vocational training is also critical for Australia's Space industry where emerging technologies and the evolving use of airspace heighten the convergence of the Aviation and Space industries and overlaps in workforce capability requirements.

Alternative Fuels

Achieving **net zero carbon emissions by 2050** is an essential aspiration for international civil aviation operations.⁵⁴ The Australian Government is also committed to reducing national emissions to net zero by 2050. The Transport and Infrastructure Net Zero Roadmap and Action Plan is one of six sector plans that supports the Government's Net Zero Plan to establish a policy direction that benefits all Australians.⁵⁵

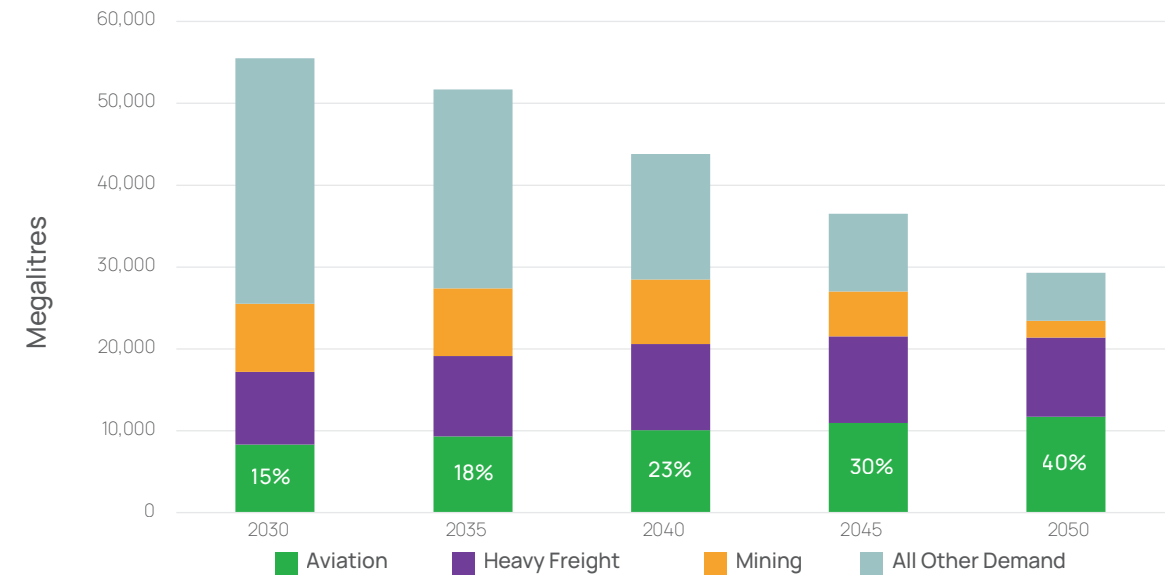
Fast-tracking **support for a low carbon liquid fuel (LCLF) industry** is a key initiative of the Australian Government's Future Made in Australia agenda. LCLFs are low emissions alternatives to conventional fossil fuels. They can be produced from biogenic feedstocks, such as oilseeds, waste, biomass and agricultural residue, and from non-biomass resources through chemical processes.⁵⁶ Government investment of \$1.1 billion over 10 years will

encourage domestic production of LCLFs through the Cleaner Fuels Program.⁵⁷

For the Aviation industry, **sustainable aviation fuel (SAF)** is the LCLF that will be the key technology for decarbonisation. Other technologies such as battery-electric and hydrogen-powered aircraft are only expected to be used for some short-haul flights in the long term.⁵⁸ Although there is a great deal of research and development into electric aircraft, this is unlikely to be deployed on a large scale in the short term.⁵⁹ Aviation is expected to remain a major driver of residual liquid fuel demand, alongside heavy freight and mining (**Figure 4**). Recent analysis indicates that demand from aviation will rise from 15% of national liquid fuel demand in 2030 to 40% by 2050, meaning aviation's fuel needs become an increasingly central part of Australia's remaining liquid fuel task.⁶⁰



Figure 4: Residual liquid fuel demand by sector



Source: Bioenergy Australia 2025. Securing our fuel future: Resilience through low carbon liquid fuels.

Alternative fuel technologies are not yet commercially viable, and stakeholders have expressed concern about global ability to produce enough SAF to meet net zero targets. Although the pace of development of SAF production facilities has been slow,⁶¹ research by the International Air Transport Association (IATA) has found that there is enough feedstock available for the industry to hit net zero by 2050.⁶² Although feedstock may be available, other barriers to production remain. Jet Zero Australia has reported that its SAF projects in regional Australia are challenged by workforce shortages and lack of available housing.

Though the widespread adoption of alternative fuels is not imminent, various **industry initiatives have explored the use of SAFs**. Qantas reports that it currently purchases SAF for some flights out of London⁶³ and that, in May 2025, it partnered with Sydney Airport and Ampol to import nearly two million litres of unblended SAF.⁶⁴ The importation demonstrated the capability of Sydney Airport's existing infrastructure to handle SAF. WSI will also be capable of delivering SAF to aircraft from day one of operations.⁶⁵ Research by Jobs and Skills Australia indicates that although Aviation industry jobs are unlikely to experience major change due to decarbonisation, they will require new training to work with alternative fuels and SAF.⁶⁶

New Technology

The **rollout of intelligent systems and technology in infrastructure** is gathering speed across the Aviation industry. Industry stakeholders report that the implementation of new technologies will demand new workforce skills. In their 2025 Corporate Plan, Airservices Australia identifies the need to focus on cultivating future skills, including systems integration, data analytics, automation and cybersecurity.⁶⁷

Airservices Australia is **investing in new infrastructure** to ensure that its services continue to meet the Aviation industry's evolving needs (**Figure 5**). Key investments and initiatives include a phased rollout of the Civil Military Air Traffic Management System (CMATS) that will unify civil and military air traffic operations; and implementation of the flight information management system (FIMS) to support the entry of uncrewed aircraft into controlled airspace. FIMS provides the foundation for the future implementation of uncrewed air traffic management (UTM) frameworks.⁶⁸

⁵⁴ International Civil Aviation Organization, [Strategic Plan 2026 - 2050](#), ICAO website, 2026.

⁵⁵ Australian Government, [Transport and Infrastructure Net Zero Roadmap and Action Plan](#) [PDF], 2025.

⁵⁶ Deloitte, [Securing our Fuel Future: Resilience Through Low Carbon Liquid Fuels](#) [PDF], Prepared for Bioenergy Australia, 2025, p 13.

⁵⁷ Department of Infrastructure, Transport, Regional Development, Communications, Sports and the Arts, [Cleaner Fuels Program: Powering low carbon liquid fuel production in Australia](#), Australian Government, n.d.

⁵⁸ Australian Government, [Transport and Infrastructure Net Zero Roadmap and Action Plan](#) [PDF], 2025, p 5.

⁵⁹ Jobs and Skills Australia, [The Clean Energy Generation](#), Australian Government, 3 October 2025, p 189.

⁶⁰ Deloitte, [Securing our fuel future: Resilience through low carbon liquid fuels](#) [PDF], Prepared for Bioenergy Australia, 2025.

⁶¹ J Nelson, [We have enough feedstock to meet sustainable fuel needs, says IATA](#), Australian Aviation, 24 September 2025.

⁶² International Air Transport Association, [Global Feedstock Assessment for SAF Production: Outlook to 2050](#), IATA website, 2025.

⁶³ Qantas Group, [Sustainable Aviation Fuel](#), Qantas Group website, n.d.

⁶⁴ Qantas Group, [Australia's Largest Import of Sustainable Aviation Fuel Lands in Sydney](#), Qantas Group website, n.d.

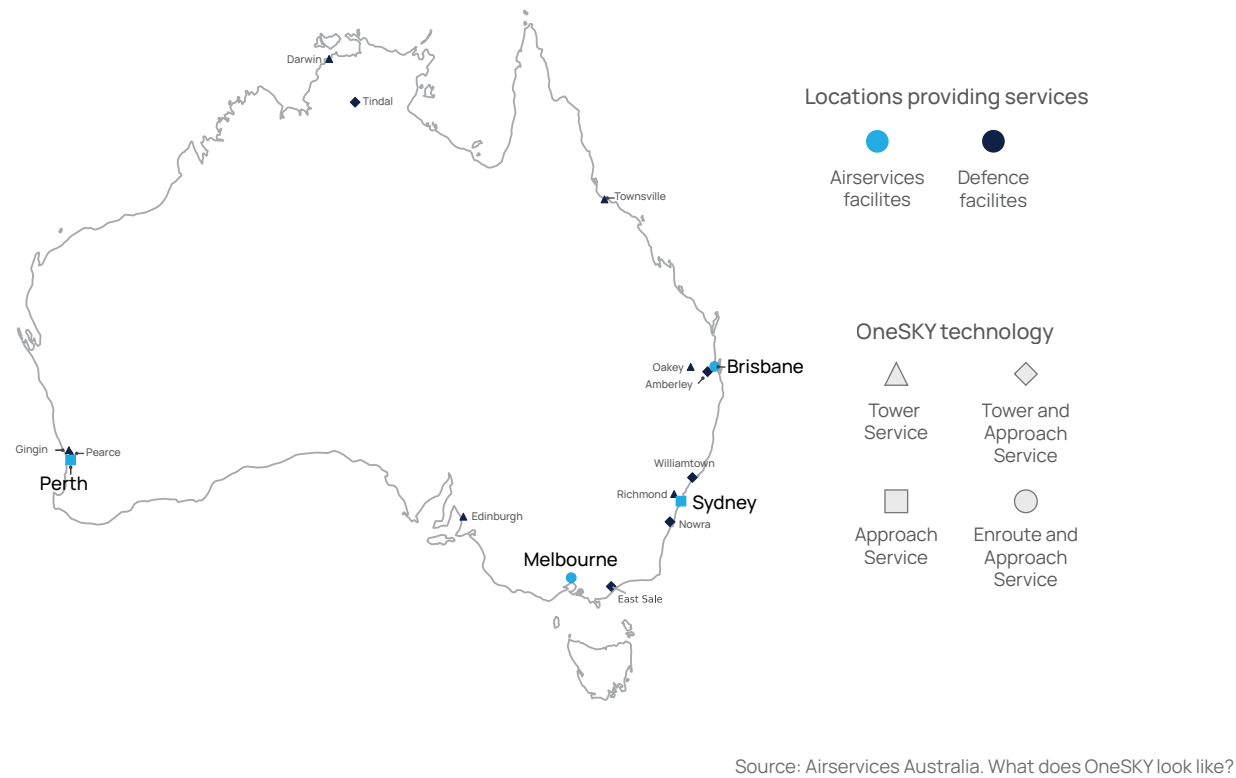
⁶⁵ Western Sydney International Airport, [Corporate Plan 2025-26](#) [PDF], 2025, p 9.

⁶⁶ Jobs and Skills Australia, [The Clean Energy Generation](#), Australian Government, 2025, p 189.

⁶⁷ Airservices Australia, [Corporate Plan 2025-26](#) [PDF], 2025, p 29.

⁶⁸ Airservices Australia, [Corporate Plan 2025-26](#) [PDF], 2025, p 29.

Figure 5: Mapping OneSKY for the CMATS Transition



Airservices is also **investing in digital aerodrome services (DAS)**. WSI will be Australia's first major airport to be built without a traditional air traffic control tower. The new airport will operate as a digitalised aerodrome where a centralised control room receives real-time vision from more than 20 high-resolution cameras that monitor the airport and airspace.⁶⁹

In 2026, Qantas is planning to **scale AI use across the business**.⁷⁰ The company is opening a new Product Innovation Centre in the Adelaide CBD with the aim of increasing the quality, design and functionality of its digital systems.⁷¹ While enhancing the customer experience is a key objective of the Adelaide centre, AI is also being leveraged in other aspects of the business, from predictive maintenance to flight planning.⁷² Meanwhile, Virgin Australia became the first Australian airline to launch a collaboration with OpenAI and is testing the use of AI functionality to support customers and forecast demand to deliver market-driven dynamic airfare pricing.⁷³

AI is increasingly used in **airport security screening and airspace management** for faster processing. AI-driven cameras provide faster and more accurate monitoring across terminals, baggage areas and restricted zones.⁷⁴ Australian airports continue to invest heavily in advanced security systems, from AI-powered scanners to cloud-based monitoring tools encompassing real-time behavioural analytics that enable rapid and proactive responses to keep airports safe.⁷⁵ Technological innovation will continue to transform aviation operations. Predictions for future change focus on improving the customer experience. This includes seamless check-in based on biometric data and personalised terminal signage and wayfinding. Ground operations are expected to become more streamlined through autonomous vehicles, automated processes and robotic applications.⁷⁶

⁶⁹ Airservices Australia, [Airservices Australia launches nation's first purpose-built digital air traffic control service at Western Sydney International Airport](#), 5 March 2024.

⁷⁰ J Nelson, [Qantas to embrace AI in 2026, says Hudson](#), *Australian Aviation*, 5 January 2026.

⁷¹ B Alvaro, [Qantas set to open tech innovation centre in Adelaide](#), *Australian Aviation*, 13 January 2025.

⁷² J Nelson, [Qantas to embrace AI in 2026, says Hudson](#), *Australian Aviation*, 5 January 2026.

⁷³ Virgin Australia, [Virgin Australia Announces Australian-Airline First Collaboration with OpenAI Set to Redefine Air Travel](#), Virgin Australia website, 28 November 2025.

⁷⁴ *Inside Flyer*, [AI-Powered Surveillance in Airports: Improving Security with Real-Time Threat Detection](#), 5 June 2025.

⁷⁵ M Kayser, [Australian Airports Invest in Advanced Systems to Stay Ahead of Security Challenges](#), *Australian Aviation*, 6 October 2025.

⁷⁶ McKinsey & Company, [Great Expectations: Perspectives on the future of airports](#), McKinsey & Co website, 3 November 2025.

Space Transport and Logistics

The Australian **space industry has experienced significant growth in recent years**, driven by innovation and experimentation to overcome the challenges of a relatively new sector. Many startup and small business leaders have entered the industry from adjacent fields such as aviation, construction, defence and mining.

The Australian Defence Force (ADF) has opened direct-entry recruitment for **new roles in space operations**: Space Operations Officer and Space Operations Specialist.⁷⁷ The space workforce is recognised as vital for safeguarding Australia's security and supporting innovation.⁷⁸ The ADF will deliver specialist space training at a new dedicated facility for the Defence Space and Cyber School.

Many roles in space transport are not yet clearly defined, and there are limited space-specific training pathways across both VET and higher education. Although the sector benefits from strong foundations in engineering and science, it requires a much broader mix of skills. To grow a capable workforce, the industry needs consistent, fit-for-purpose training products that can prepare current workers and new entrants for careers in space logistics and other emerging specialisations.

Because **the Australian space sector has largely evolved from adjacent industries**, such as aviation, defence, construction and mining, its workforce often comes with valuable but only partly transferable

skills. Understanding the complex regulatory, safety and operational requirements of space businesses remains difficult, particularly in areas involving high-risk materials, strict security controls and specialised handling processes. These challenges are compounded by limited formal training, steep learning curves and the high-risk, fast-evolving nature of the sector, leaving many organisations reliant on informal knowledge sharing and trial-and-error approaches.

Transport and logistics (T&L) is a critical part of the space industry, yet specialised training for space-related T&L roles is still underdeveloped. The sector requires capabilities in areas such as inventory management for dangerous or sensitive goods, specialised storage and transport procedures, and understanding regulatory requirements for space-related imports, exports, repairs and recycling.

ISA has conducted a Space Transport and Logistics Skills Gap Analysis to **understand existing and emerging roles and skills needs** within the industry and compare these to current VET training packages, units and qualifications to identify skills gaps in available training. The analysis highlights the need for nationally accredited training that supports these functions and can be embedded into existing pathways, including aviation qualifications. Strengthening these foundations will be essential to equip future workers and support the sustainable growth of Australia's space industry.⁷⁹



⁷⁷ Australian Government Defence Ministers, [Defence launches new space roles in the ADF](#), Australian Government, 9 February 2026.

⁷⁸ Australian Space Agency, [New pathways into Australia's space future](#), ASA website, 9 February 2026.

⁷⁹ Industry Skills Australia Limited, [Space Transport and Logistics Skills Gap Analysis](#), Department of Employment and Workplace Relations, 2024.

ISA-led Actions

Air and Space Skills Gap Analysis

The *Space Transport and Logistics Skills Gap Analysis Report*, released by ISA in December 2025, identifies workforce challenges in Australia's rapidly expanding space sector. The study found significant gaps in VET training for space specific logistics roles and limited pathways between vocational and higher education, affecting critical functions such as procurement, inventory management and transportation. The report recommends targeted updates to VET products, development of space-focused qualifications and stronger cross-sector pathways to build a job-ready workforce. These actions aim to close skills gaps, support industry growth and strengthen Australia's position in the global space economy.



Digital Skills

ISA is analysing the digital skills required across Australia's transport supply chain to support and strengthen workforce capability. Using the international DigComp framework, the project will develop Digital Occupational Profiles for key roles in aviation, maritime, rail, and transport and logistics. These profiles will define the digital knowledge, skills and proficiency levels required for workers to support their readiness in an increasingly digital operating environment. The profiles will also inform a strategic review of training packages by identifying skills gaps and reskilling needs that reflect these evolving job roles and digital skill requirements.



Technology Futures Taskforce Phase 2 – Occupational Analysis

The Technology Futures Taskforce (TFT) will pilot a methodology to identify new and emerging technologies set to reshape key transport supply chain occupations and the training products that support them. It will combine AI analysis with expert insights from industry to validate the findings and anchor them into the Australian context. This phase will focus on four occupations undergoing significant technological change. It will deliver occupation reports, map affected training products, estimate the technology adoption rate and develop a scalable Technology Trend Radar. Together, these outputs will strengthen workforce readiness, guide upskilling and reskilling, and enable training packages to anticipate future skills needs.



Technology Futures Taskforce Phase 2 – Geographical Analysis

This TFT activity will expand the methodology by piloting it at the geographic level, focusing on a high-growth investment in the Western Sydney Aerotropolis. The project will examine how emerging technologies are likely to be adopted across the local ecosystem, and the subsequent impacts on workforce demand, occupational profiles, and skills requirements across the transport supply chain. It will deliver a comprehensive workforce report, map impacted training products, model workforce impacts and timelines, and analyse portable skills from adjacent occupations to identify pathways. Together, these outputs will strengthen workforce readiness, guide upskilling and reskilling, and enable training packages to anticipate future skill needs.



Stakeholder Consultation

ISA will conduct targeted consultation activities to inform the development of future strategies or initiatives that support the aviation workforce in preparing for change. Stakeholder engagement will explore a space transport qualification, and sustainable aviation fuels (SAF) and alternative fuels.



Related Initiatives

Australian Government: Cleaner Fuels Program

The Australian Government has committed to fast-tracking a domestic low carbon liquid fuel (LCLF) industry, as part of its Future Made in Australia agenda. The \$1.1 billion Cleaner Fuels Program aims to encourage domestic production of LCLF by providing production-linked incentives over 10 years.



Teens set to Take Flight at Seven Hills High School – Vocational High Schools Program

Seven Hills High School is a leading provider of school-based aviation training in NSW, delivering Certificate I in Aviation (Foundation Skills) and Certificate II in Aviation through the Vocational Innovation Centre (VIC) in partnership with TAFE NSW. As part of the Vocational High Schools Program (launched in 2023), the school offers an aviation pathway that delivers industry-standard, real-world training aligned to employer needs. The VIC at Seven Hills High School is the pioneer in NSW to deliver Certificate I in Aviation, positioning students at the forefront of an emerging pipeline of aviation-ready talent.

Students from more than 30 Western Sydney high schools access the VIC's facilities, with aviation classes now at full capacity due to strong parent confidence and clear employment prospects.

Program Model

The Vocational High Schools Program operates through a blended model of school-delivered VET courses and onsite training in partnership with TAFE NSW. Central to this approach is VIC, a purpose-built facility providing industry-standard training environments and supporting innovative curriculum pathways for students in Years 11 and 12. The model uses the VIC to bring together schools, TAFE NSW, industry partners, businesses, associations and private training providers, with students from across Western Sydney.

Currently, 384 students are undertaking a vocational course, either through school or TAFE, with some students also completing a School-Based Apprenticeship and Traineeship (SBAT), while studying at the VIC, this reflecting a 553% growth in enrolments at the VIC. Industry Liaison Officer Janelle Henson notes that the program aims to build "experience, skills, knowledge, confidence". With industry actively partnering in its delivery, the program provides an employment pipeline as well.

Andrew Kerr, Deputy Principal of Skills and Pathways at Seven Hills High School describes the model as "a bridge between school and adult education" emphasising that students undertake TAFE courses with a strong network of support rather than navigating the system alone.

Building on this platform, the VIC delivers aviation-specific training that aligns with workforce needs through its partnership with Western Sydney Airport, ensuring programs meet employer expectations. The school's practical, relational learning approach gives students real-world experience.

Aviation qualifications provide:

- Fundamental aviation skills and knowledge
- A nationally recognised qualification
- Direct pathways to aviation employment with industry-recognised skills
- Access to traineeships, further education, and employment readiness
- A competitive edge in a high-growth employment sector.

Early outcomes include:

- Employability skills: Andrew Kerr emphasises that "even if students don't pursue the specific field they study, VET equips them with essential employability skills such as teamwork, communication, and the ability to work effectively with others".
- Pathway progression: 38% of the first cohort securing Australian apprenticeships.
- Strong student engagement: Students respond positively to hands-on learning, particularly when clear, visible pathways demonstrate how participation leads to real opportunities in specific industries This motivates the students and helps parents recognise the value of the program.

Program success is driven by a strong blended delivery model that combines school-delivered VET with high-quality, industry-standard onsite training, underpinned by genuine partnerships with TAFE NSW and employers to keep learning aligned to workforce needs. Clear, visible pathways into apprenticeships, traineeships and employment, alongside a strong support network, help sustain student engagement and build parent confidence. Success is also strengthened by proactive communication and expectation-setting about course demands and outcomes, and by deliberately addressing stigma and misconceptions so VET is understood as a rigorous, future-focused first-choice pathway.



Capability Development for Uncrewed Systems

The 2025 Workforce Plan reported that Advanced Air Mobility (AAM) requires targeted programs to support workforce readiness. Further stakeholder engagement in 2025 confirmed that new operational training and regulatory frameworks are required to support AAM and autonomous or uncrewed aircraft.

Industry Growth

Industry stakeholders report that **demand for drone pilots is rising** across all industries. The numbers of active remotely piloted aircraft operator's certificates and remote pilot licences have seen significant growth over recent years (Figure 6). Over the past decade, both credentials have climbed steadily year-on-year and in the 12 months to June 2025, the number of remotely piloted aircraft operator's certificates grew by almost 9% to 3,011 certificate holders. Over the same period, the number of remote pilot licences increased by more than 13% to 39,653 licences.



Figure 6: Growth in Drone Operator Certificates and Remote Pilot Licences



Source: CASA annual reports, 2017-18 to 2024-25

Continuing advances in technology will make **remotely piloted aircraft systems (RPAS)** more efficient, affordable and able to operate over longer distances. As these systems mature, CASA expects RPAS flight volumes to continue growing, driven by expanding use across commercial sectors, particularly for goods delivery.⁸⁰ In 2025, a survey conducted by the Australian Association for Uncrewed Systems (AAUS) found that the most common uses for drones are currently in environment and land management, surveying, and building and construction. In the next two years, greater uptake is expected in emergency services.⁸¹

At the same time, the **emergence of advanced air mobility (AAM) is accelerating**, with CASA anticipating that the first AAM aircraft could be operating in Australia within five years. Future adoption of electric vertical take-off and landing aircraft (eVTOL) vehicles is expected for urban mobility. Companies such as Wisk are already targeting operational capability ahead of the 2032 Brisbane Olympics.⁸²

The RPAS and AAM Strategic Regulatory Roadmap forecasts a **significant rise in demand for regulatory approvals for more complex operations**, including beyond visual line of sight (BVLOS), higher risk and larger RPAS, automation, and operations near aerodromes.⁸³

The AAUS survey found that industry **stakeholders view regulatory factors as the biggest current risk** to the drone industry.⁸⁴ CASA has collaborated with other international aviation authorities to develop a roadmap for AAM that will streamline certification and validation processes for new aircraft types across international borders.⁸⁵ However, due to current range constraints for many RPAS and AAM aircraft, cross-border operations from Australia are likely to remain a longer-term prospect.

As technologies evolve, **further work will be required on regulatory settings for elements of the AAM ecosystem**.⁸⁶ CASA is actioning this work to support expected AAM deployment timelines. The long-term shift to autonomous AAM will increase demand for aviation professionals with advanced technical capabilities, particularly in artificial intelligence and systems automation.⁸⁷ This will intensify competition with other industries for highly skilled workers, underscoring the need for targeted workforce development to support safe and effective integration of AAM and RPAS into Australia's Aviation industry.

AAM – Advanced Air Mobility refers to the emerging ecosystem of new aviation services and innovative technologies to transport people and goods.

RPAS – Remotely Piloted Aircraft Systems also known as drones, refers to uncrewed aircraft and all associated components such as the control station, communication links and software.

eVTOL – Electric Vertical Take-off and Landing aircraft are electrically powered vehicles capable of taking off and landing vertically. They are considered part of the AAM sector in Australia.

EVLOS – Extended Visual Line of Sight refers to drone operations where the remote pilot cannot keep the aircraft in direct visual sight at all times but trained observers maintain visual contact and provide continuous situational updates. EVLOS is a CASA-approved operation class.

BVLOS – Beyond Visual Line of Sight refers to drone operations conducted entirely outside the visual range of the pilot and observers. In Australia, BVLOS operations require CASA approval, a detailed safety case and often detect-and-avoid technologies.

Operational Requirements

Industry stakeholders report a growing **need for new skill sets and qualification specialisations** and pathways into advanced uncrewed aviation roles. Skills shortages are already affecting the sector, with respondents to an AAUS survey indicating that an inability to find good staff is negatively impacting the industry.⁸⁸ This issue will intensify as operations expand in scale and complexity. The future AAM workforce will require capabilities in systems automation, BVLOS mission planning and advanced safety management.⁸⁹

⁸⁰ Civil Aviation Safety Authority, *RPAS and AAM Strategic Regulatory Roadmap v2.1* [PDF], Australian Government, 2024, p 14.

⁸¹ Australian Association for Uncrewed Systems, *Australian RPAS Industry Survey 2025*.

⁸² J Nelson, *CASA tips air taxis to be up and running by 2030*, *Australian Aviation*, 11 December 2024.

⁸³ Civil Aviation Safety Authority, *RPAS and AAM Strategic Regulatory Roadmap v2.1* [PDF], Australian Government, 2024, p 14.

⁸⁴ Australian Association for Uncrewed Systems, *Australian RPAS Industry Survey 2025*.

⁸⁵ Civil Aviation Safety Authority *Groundbreaking roadmap for aircraft of the future released* [Media Release], CASA website, 17 June 2025.

⁸⁶ Civil Aviation Safety Authority, *RPAS and AAM Strategic Regulatory Roadmap v2.1* [PDF], Australian Government, 2024, p 14.

⁸⁷ International Civil Aviation Organisation, *Next Generation of Aviation Professionals (NGAP) Strategy* [PDF], May 2025, p 2.

⁸⁸ Australian Association for Uncrewed Systems, *Australian RPAS Industry Survey 2025*.

⁸⁹ Civil Aviation Safety Authority, *RPAS and AAM Strategic Regulatory Roadmap v2.1* [PDF], Australian Government, 2024, p 15.

CASA's RPAS and AAM Strategic Regulatory Roadmap signals **substantial change to training and licensing frameworks** over the next decade as operations become more automated and higher risk. Planned reforms include aligning RPAS training and licensing requirements with international standards; implementing standard requirements for piloted passenger-carrying AAM; reviewing training for BVLOS operations in controlled airspace; developing outcome-based training standards for Remote Pilot Licence (RePL) holders; and introducing national training and licensing requirements for AAM personnel and dispatchers.⁹⁰ These reforms reflect the growing complexity of the AAM environment and the need for structured pathways into the sector.

A **supportive regulatory environment is essential** to support AAM infrastructure planning and workforce development. CASA's work in this area is supported by the RPAS and AAM Strategic Regulatory Roadmap, which outlines the approach for drone and AAM regulation over the next 10–15 years.⁹¹ In addition to supporting the emergence of a stable and viable AAM operating environment, robust regulation is required to safeguard Australian communities, businesses and infrastructure. The Aviation White Paper warned that Australia's federal and state legislative frameworks do not adequately address the long-term security risks of drones and recommended that fit-for-purpose legislation will be needed to adequately protect against criminal or dangerous activity.⁹²

The emergence of AAM is creating **demand for new and more advanced workforce skills**, yet the specific capabilities required for safe and effective operations are still being defined. To prepare the workforce, industry will need a clear analysis of emerging roles and the development of nationally recognised training products aligned with CASA regulations.

The shift towards commercial-scale uncrewed operations will **require new national infrastructure**, including a Flight Information Management System capable of certifying flights, integrating uncrewed traffic with conventional aircraft and supporting real-time monitoring. Airservices Australia has begun developing this alongside private sector innovators, establishing the protocols and digital platforms needed for future AAM and RPAS operations.⁹³

The Australian Government is also exploring the **expanded use of ADS-B** (Automatic Dependent Surveillance-Broadcast) to support the safe integration of new aviation technologies.⁹⁴ ADS-B allows crewed and uncrewed aircraft to broadcast their position electronically so they can be reliably seen by air traffic systems and by each other. This electronic visibility is essential for developing Uncrewed Traffic Management (UTM), the future digital system that will coordinate large numbers of drones and other autonomous aircraft. A broader rollout of ADS-B forms one of the foundational elements of the national UTM Action Plan because it ensures every airspace user can be detected and monitored.⁹⁵ Expanded ADS-B capability will also support CASA's BVLOS framework, which relies on reliable, real-time electronic location data to safely scale drone operations over long distances where pilots cannot physically see the aircraft. Industry stakeholders support expanded ADS-B adoption to enable the growth and development of commercial AAM operations.⁹⁶

ISA-led Actions

Remote Pilot Licencing Alignment

The Certificate III in Aviation (Remote Pilot) is being updated to align more closely with CASA's Remote Pilot Licence requirements and ensure training reflects current industry practice. With drone use expanding rapidly across sectors, the project aims to streamline the pathway to commercial licensing by reducing the extra training students currently need after completing the qualification. Strengthening alignment with CASA regulations will help build a skilled, compliant workforce and improve the quality and efficiency of drone operations nationwide. The updated qualification will better prepare operators for safe, professional drone use across an increasingly technology-driven industry.



Remote Pilot Aircraft Systems (RPAS) Tiered Competency Requirements

A tiered competency framework for Remotely Piloted Aircraft Systems is being developed by ISA to support clear pathways from entry-level drone operators to advanced roles such as chief remote pilots. The project will define progressive tiers based on aircraft type, operational complexity and industry use, ensuring operators gain the skills needed for high-risk activities including BVLOS missions. It will also examine how existing RPAS qualifications, including Certificate IV and Diploma level programs, can align with the new framework. Informed by industry consultation, risk data and international models, the project will deliver a proposal for CASA for consideration to support modern, fit-for-purpose licensing.



Advanced Air Mobility Skills Gap Analysis

A skills gap analysis is being conducted by ISA to support the integration and growth of Advanced Air Mobility in Australia. The analysis will identify the workforce capabilities needed for emerging roles in electric, autonomous and uncrewed aviation. ISA is mapping required skills against CASA defined roles, assessing alignment with current VET and Higher Education programs and will recommend updates or new qualifications to build clear training and career pathways. Through research and extensive industry consultation, the project will define future workforce requirements and provide a framework to guide training system development, ensuring Australia is prepared for largescale AAM deployment.



Related Initiatives

Australian Government: Uncrewed Traffic Management Action Plan

The Uncrewed Traffic Management (UTM) Action Plan was released in 2024 and outlines a whole-of-government approach to delivering uncrewed aerial system traffic management in an iterative, proportionate and industry supportive manner. The plan outlines government actions in relation to separation and airspace integration, better regulation, fit-for-purpose regulatory approvals, and improved compliance, enforcement and security.



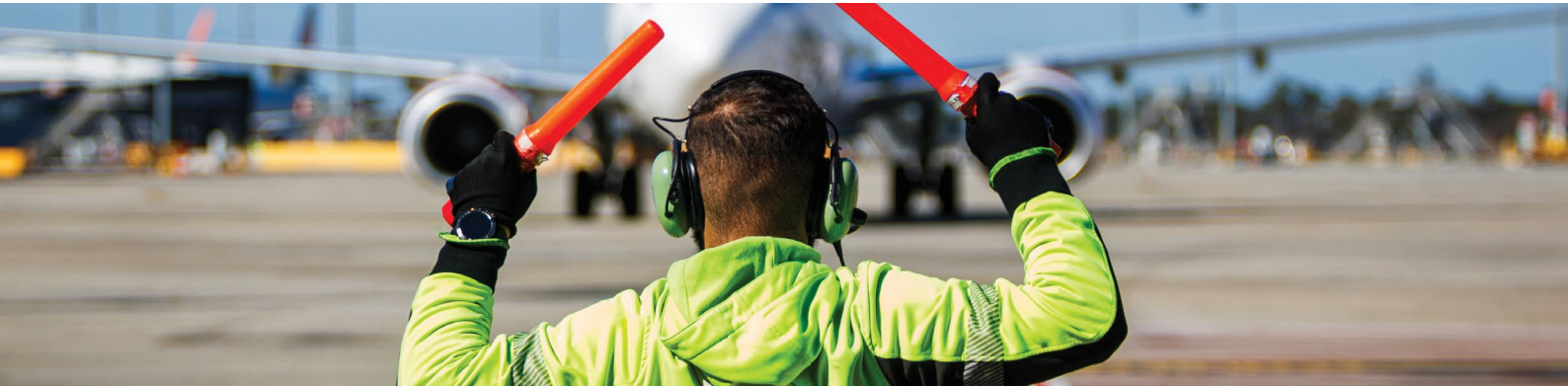
CASA: RPAS and AAM Strategic Regulatory Roadmap

The roadmap sets out Australia's future approach to aviation safety regulations and oversight for remotely piloted aircraft systems (RPAS) and advanced air mobility (AAM). It complements and prioritises regulatory development for these sectors by providing a strategy and plan that is aligned to acceptable levels of safety.



Australian Government: First Nations Drone Policy Design Project

The project was funded in 2023–24 under APS Capability Reinvestment Fund to uplift cultural competency in technology policy design, focusing on drone policy. The project explored how drone policy design can be improved to help support Closing the Gap targets and government transformation. Project outcomes will inform next steps for policy design.



⁹⁰ Civil Aviation Safety Authority, [RPAS and AAM Strategic Regulatory Roadmap v2.1](#) [PDF], Australian Government, 2024, pp 39–40.

⁹¹ Australian Government, [Aviation White Paper: Towards 2050](#) [PDF], 2024, p 192.

⁹² Australian Government, [Aviation White Paper: Towards 2050](#) [PDF], 2024, p 197.

⁹³ R Sharp, [Infrastructure in the sky: Why Australia's growth depends on getting airspace right](#), Airservices Australia, 28 October 2025.

⁹⁴ Department of Infrastructure, Transport, Regional Development, Communications and the Arts, [Automatic Dependent Surveillance Broadcast \(ADS-B\) mandate](#), Australian Government, 2025.

⁹⁵ Department of Infrastructure, Transport, Regional Development, Communications and the Arts., [Uncrewed Aircraft Systems \(UAS\) Traffic Management \(UTM\)](#), Australian Government, 2025.

⁹⁶ Australian Association for Uncrewed Systems, [AAUS Submission: Potential Expansion of ADS-B Mandate in Australia](#), 27 October 2025.

Appendices

Appendix A: Explanatory Notes to Data

Occupational Data (Workers) vs Industrial Data (Workforce)

When analysing the workforce and industry data in Australia, two classifications are commonly used: ANZSCO/OSCA and ANZSIC.

- ANZSCO (Australian and New Zealand Standard Classification of Occupations) or OSCA (Occupation Standard Classification for Australia) categorises occupations based on skill level and specialisation
- While OSCA replaced ANZSCO for use in Australia in December 2024, the underlying data (such as the Labour Force Survey, or the Occupational Shortage List) are yet to be updated.
- ANZSIC (Australian and New Zealand Standard Industrial Classification) classifies businesses into industry sectors. This groups companies based on the primary activities they are engaged in.

In simple terms, ANZSCO/OSCA is about what people do in their jobs, and ANZSIC is about the industry or sector where businesses operate. They are used for different purposes and are not directly comparable.

In this document, we use the term 'Workers' when referring to occupational data (ANZSCO/OSCA) and industry 'Workforce' when referring to industrial data (ANZSIC).

Occupational Shortage vs Skills Shortage

In this document, we distinguish between occupational shortages and skills shortages.

- Occupational shortage: This occurs when employers struggle to fill vacancies for a specific occupation or can't find employees with specialised skills needed in that occupation. Essentially, there aren't enough qualified people available to do the job.
- Skills shortage: This refers to a situation where the existing workforce does not possess the right skills to meet the demands of their sector or occupation. It's not about the number of employees, but about the quality or suitability of their skills.

Business Count

In the Counts of Australian Businesses data, industries are classified by the main industry linked to a business ABN. This method has limitations. Firstly, businesses operating in several states/territories are counted only once, making enterprise figures appear low in some areas. This does not mean that there are no enterprises in those regions; rather, that their headquarters are located elsewhere. Secondly, if an organisation operates in multiple industries, it is only counted in one, leading to potential inaccuracies in industry classification.

Regional Data

NERO data is provided for broad regions that each include a number of local communities. JSA further classifies these regions into two categories: Major Cities and Regional areas.

Training Data

Total VET Activity (TVA) data is collected from all types of RTOs and not only those in receipt of Commonwealth or state funding.

Endnotes/Special References

* Scenic and Sightseeing Transport is an industrial category that covers all transport modes. The workforce is split proportionately among the transport sectors according to historical Census distributions.

Sources for infographics

Data	Source
Airports in Australia	ourairports.com
Automation/augmentation exposure	JSA, Our Gen AI Transition, Occupation exposure data 2025 Note: JSA exposure scores estimate the potential for Gen AI to augment or automate tasks in each occupation. They reflect technical potential rather than actual adoption or employment effects.
Business No Business distribution by state %	ABS Counts of Australian Businesses 2025
Female (%)	ABS Labour Force 2023–2025, four-quarter average data
GDP contribution \$b 2024–2025 Estimated annual revenue \$b 2024–2025	IBISWorld Industry Wizard
Higher education enrolments (2023)	Jobs and Skills Atlas, 2026
Highest graduate employment rate (2020/2021)	JSA, VET Graduate Outcomes 2020–21
Highest median age	JSA, Occupation Profile data (Nov 2025)
Lowest vacancy rate (%) Part time (%)	JSA, Jobs and Skills Atlas 2026
Median gender pay gap	Workplace Gender Equality Agency (WGEA) 2024–25
Occupation Shortages	JSA, Occupation Shortage List 2025
Online job ad growth % (2020–2025)	JSA, Internet Vacancy Index 2025
Passengers on domestic commercial flights Regional airports carry % of all domestic passengers	BITRE, Domestic Aviation Activity 2024–25
Qualification enrolments 2024 Qualification enrolments by state % VETiS student count Gender/First Nations/Disability % (2024) Apprenticeships/Traineeships (% of AVI enrolments) Top 5 qualifications by enrolments (2024)	NCVER, Total VET Activity 2024
RTOs scoped to deliver aviation quals Training Package summary (# quals, units, skill sets) RTO map (Explicit scope)	training.gov.au 2026
Registered drones in Australia	CASA Annual Report 2023–2024
Workforce in aviation companies (2025) Workforce in aviation companies (2030) Workers in aviation roles (2025) Workers in aviation roles (2030)	JSA, Employment Projections 2025

Appendix B: Abbreviation List

AAA	Australian Airports Association	RePL	Remote Pilot Licence
AAM	Advanced Air Mobility	RPAS	Remotely Piloted Aircraft Systems
ABS	Australian Bureau of Statistics	RTO	Registered Training Organisation
ADF	Australian Defence Force	SAF	Sustainable Aviation Fuels
ADS-B	Automatic Dependent Surveillance-Broadcast	SWPC	Strategic Workforce Planning Committee
ANZSCO	Australian and New Zealand Standard Classification of Occupations	TAE	Training and Education Training Package
ANZSIC	Australian and New Zealand Standard Industrial Classification	UAS	Uncrewed Aircraft Systems
AR	Augmented Reality	UTM	Uncrewed Traffic Management
ARO	Airfield Reporting Officer	VET	Vocational Education and Training
ASQA	Australian Skills Quality Authority	VR	Virtual Reality
BVLOS	Beyond Visual Line of Sight	WSI	Western Sydney International
CASA	Civil Aviation Safety Authority		
CASR	Civil Aviation Safety Regulations		
CMATS	Civil Military Air Traffic Management System		
CPL	Commercial Pilot Licence		
DAS	Digital Aerodrome Services		
eVOTL	Electric Vertical Take-off and Landing		
FAAA	Flight Attendants' Association of Australia		
FIMS	Flight Information Management System		
GA	General Aviation		
GAAN	General Aviation Advisory Network		
IATA	International Air Transport Association		
ICAO	International Civil Aviation Organisation		
ISA	Industry Skills Australia		
JSA	Jobs and Skills Australia		
JSC	Jobs and Skills Council		
LAME	Licensed Aircraft Maintenance Engineers		
LCLF	Low Carbon Liquid Fuel		
MOS	Manual of Standards		
NGAP	Next Generation of Aviation Professionals		
OSCA	Occupation Standard Classification for Australia		
OSL	Occupation Shortage List		

Appendix C: Methodology

ISA's workforce planning process is underpinned by deep industry knowledge and a commitment to delivering reliable and forward-looking workforce advice.

Ongoing engagement with industry informs our comprehensive approach to workforce planning. We speak regularly with stakeholders, including industry associations, employers, unions and state/territory-based industry advisory bodies, to understand real-world workforce issues. We then combine these insights

with careful analysis of workforce and training data. By reviewing evidence to continually test what we hear, we build a clear and practical picture of how industry is changing and what pressures lie ahead.

The 2026 Workforce Planning Update builds on the industry intelligence compiled in the 2025 Workforce Plan and provides information on the progress of initiatives to address identified industry challenges.

Key steps in preparing the 2026 Workforce Planning Update

1

Stakeholder engagement

Industry roundtables, leader dinners and targeted consultations validated the challenges identified in the 2025 Workforce Plan and flagged new and emerging issues.

2

SWPC reflection

The SWPC reviewed consultation insights to refine themes, confirm industry priorities and shape potential actions.

3

Scoping survey

A public survey tested themes, priorities and proposed responses with industry stakeholders.

4

Draft development

Quantitative and qualitative data were analysed to illustrate identified challenges and document progress against industry priorities.

5

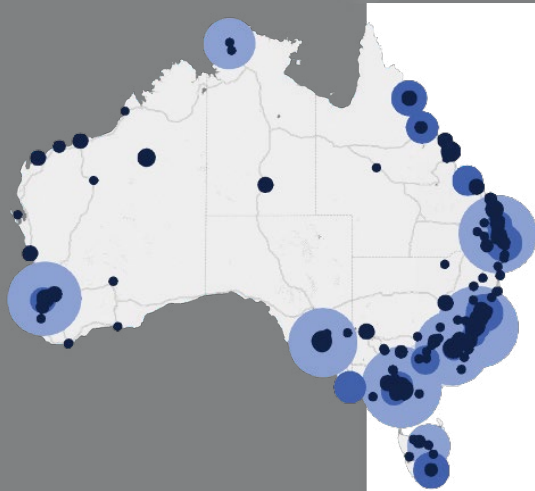
Public feedback

A draft update was shared with stakeholders for review and comment.

6

Finalisation

Guided by the SWPC, stakeholder feedback was incorporated to refine and complete the 2026 Workforce Planning Update.



Roundtables

Through a national series of Industry Dinners and Roundtables, ISA heard directly from industry stakeholders across Australia. This on-the-ground engagement with industry leaders, employers, unions, industry organisations and government representatives provides critical intelligence that cannot be captured through data alone. It plays a central role in understanding the real-world challenges facing the industry and clarifying where effort is most urgently needed.

Stakeholders highlighted the complex workforce challenges affecting their operations and stressed the need for collaboration to address interconnected issues within and across industry sectors. They also helped to identify practical, forward-looking solutions to advance industry priorities.



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