

Australian Aviation Network Overview

February 2024

Executive Summary

In February 2024, the Australian aviation network recorded a 2% increase in flights compared to the previous month. We are also seeing a gradual diversification in domestic and international route structures, bringing improved connectivity to regional Australia and international markets. Post-pandemic traffic growth continues to be leisure-driven, as shown by the surge in domestic traffic in late February coinciding with major entertainment events in Sydney and Melbourne.

Despite weather disruptions throughout the summer period, overall industry on-time performance (OTP) improved from December 2023, with service reliability and resilience being a shared priority across our sector. OTP and Ground Delay Program (GDP) compliance nevertheless remain below historical benchmarks.

Additional governance has been implemented to more finely balance demand with capacity by ensuring GDP application occurs only at those times when most needed. Monitoring and reporting on the additional controls will aid our collective understanding of the effect on OTP and airborne delays. Targeted industry engagement to increase GDP compliance also remains a focus to optimise capacity and constraint management, particularly in protecting the first rotation period given limited opportunity to recover as the day progresses and airlines' reliance on this period for route connectivity and aircraft utilisation.

The consistency of air traffic services in 2024 to date continues to improve from the average monthly trend in 2023. In February, the service impact due to Airservices' capacity constraints was at its lowest level in ten months affecting just 1.3 per cent of all flights. Where GDP periods were implemented, eight per cent of ground delay periods were attributable to Airservices. Additional layers of resilience and flexibility continue to be built into the air traffic services operating model to deliver month-on-month improvements. This includes our recruitment program, training system improvements, refining traffic management processes and continual investment in our people experience and service culture.

Australia's drone market is expected to grow significantly over the next twenty years, with commercial drone flights projected to grow from around 1.5 million currently to 60 million flights per year by 2043. Enhanced drone surveillance and transformation in air traffic management through advanced technology and data insights is critical to enable the safe and seamless integration of uncrewed operations into the Australian aviation network.

The intensification of aircraft noise complainants nationally, as well as developments in new airport infrastructure highlight the importance of a whole-of-industry approach to address the impact of aircraft noise on the community. The announcement of the Senate inquiry into aircraft noise provides further focus on the importance of establishing and maintaining social licence.



We acknowledge and embrace a culture that celebrates diversity, inclusion, and equality for all. In making this statement we acknowledge Aboriginal and Torres Strait Islander peoples as the Traditional Owners and Custodians of the country on which we operate, now called Australia.

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Economic and social trends

Economic factors

Tourism and air travel demand has remained resilient against the backdrop of cost-of-living pressures, higher interest rates and global uncertainty. Stabilising jet fuel prices and airline capacity increases are likely to put downward pressure on air fare. However weakness in Australian economic growth and low consumer sentiment present ongoing risks to aviation growth.

Figure 1. Jet fuel and Brent crude oil prices



Source: Bloomberg

Figure 4. Domestic air fares (best discount)



Figure 2. Monthly Consumer Price Index (CPI) Indicator (data released 29/02/2024 up to January 2024)



Source: ABS (website)

Figure 5. Australia GDP Growth (data as of 1 February 2024)

Source: RBA (website)

Figure 3. Tourism outlook by categories of domestic overnight trips, outbound travel and international arrivals



Figure 6. Westpac-Melbourne Institute Index of Consumer Sentiment



Source: Westpac Economics, Melbourne Institute

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Social factors

The intensification of aircraft noise complainants nationally, as well as the level of community interest in the Western Sydney International Airport draft Environmental Impact Statement (EIS) highlight the importance of a whole-of-industry approach to better understand and collectively address the factors that contribute to the impact of aircraft noise on the community. Optimising growth and efficiency must be balanced with cross-industry actions to minimise aircraft noise where safe and feasible across aviation planning, design, development and operations processes.

Figure 7. Aircraft noise complaints per complainant at major capital city airports



Source: Airservices Noise Complaints and Information Service (NCIS)





Australian aviation and regional context

State of Australian aviation growth

Our industry is starting to show a normalising rate of growth across all segments. Passenger traffic growth continues to be leisure-driven, as shown by the surge in domestic traffic in late February coinciding with major entertainment events in Sydney and Melbourne.

Jun-24



Figure 9. Average daily flights per month by industry segment



General Aviation Major Domestic International Medical / Mercy Other Domestic Freight / Cargo Military

Source: Airservices ODAS (general aviation data in arrears by one month)

Figure 10. Domestic passengers and seat capacity as a proportion of 2019 levels – January 2021 to December 2023



Source: Airservices aeronautical charge database (excludes some general aviation flights that are not subject to Airservices aeronautical charges; Airservices' forecast is as of June 2023).

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Top aircraft operators

Domestic growth has been driven by operators such as Bonza, National Jet Express, Air North and Skytrans to serve new and growing regional demand. We are also seeing a change in the composition of international airlines in Australia, with expansions above pre-pandemic levels dominated by those that focus on leisure markets especially in South East Asia. Recovery from Chinese airlines has been uneven, and their combined daily flights in Australia are still around 86% of pre-pandemic levels.



Source: Airservices ODAS (excludes general aviation, cargo, military and medical/mercy flights)

Domestic network

Strong regional growth has been influenced by mining demand and a shift towards regional locations for holidays and lifestyle changes. In response to this demand, consumer choice of carrier and route options has gradually increased. Adapting to this growth requires more dynamic airspace and airport infrastructure planning, increased flexibility and community engagement on changes in aircraft operations.



Figure 14. Domestic airport growth in terms of change in daily average movements (February 2024 vs February 2019)

Source: Airservices ODAS (excludes military and medical/mercy flights). Only airports with at least 10 daily average movements in 2019 and at least 5% change since 2019 are included.

Traffic flows from international markets

Figure 15. Percentage change in total flights by international

markets in February 2024 vs February 2023

Following the uptick in international demand during the summer holiday season, the rate of growth is normalising but we continue to see increased connectivity in our neighbouring region and intercontinental services. For example, AirAsia, Batik Air, Vietjet, Philippine Airlines, Turkish Airlines, American Airlines and United Airlines have all recently announced new city-pair routes providing more direct connections compared to pre-pandemic hub-and-spoke models dominated by a small number of primary carriers.



Figure 16. Average daily number of flights per month by international markets

Source: Airservices ODAS (excludes general aviation, cargo, military and medical/mercy flights) For multi-leg flights, legs that start and end outside Australian airspace are not included.

Change in active fleet as a capacity indicator

With ongoing traffic growth, airlines are progressing fleet renewals to improve operational efficiency, sustainability, connectivity and passenger experience. For example, Qantas has commenced replacement of Boeing 717 fleet with the new-generation Airbus A220 aircraft. There is a shift towards using modern Boeing 737 Max and A320 aircraft for regional markets, such as the Pilbara region and new leisure routes operated by Bonza. However the pace of fleet renewal remains constrained by labour/parts shortage, aircraft manufacturing and supply chain challenges in the short term.

Figure 17. Active Airbus and Boeing fleet in Australia and by region (comparisons across the February period in 2019, 2023 and 2024)



Figure 18. Change in total active Australian fleet (as of 29 February 2024 vs 28 February 2023)



Figure 19. Aircraft on order for Qantas Group and Virgin Australia airlines (as of 29 February 2024)



Source: Centre for Aviation Fleet (CAPA)





Australian aviation network performance

On-Time Performance (OTP)

Weather disruptions (e.g. Cyclone Kirrily in Queensland and flash flooding in Western Australia) impacted industry OTP in January 2024. This is evident in the elevated cancellations and flight delays in impacted locations such as Townsville and Newman. Despite these challenges, overall OTP improved from December 2023, following increasing cross-industry focus on improving service reliability and resilience.



Figure 20. Total industry OTP and cancellations (data available up to 31 January 2024 based on latest BITRE data release)

Source: BITRE (website)

Understanding drivers of OTP

In efforts to understand the key drivers of OTP, we are seeing consistent patterns of demand in excess of capacity at Sydney, Melbourne and Perth during morning and afternoon peak periods. The Ground Delay Program (GDP) is a key demand/capacity balancing tool that provides predictability to airlines through staggered departure times to manage the flow of air traffic. However significant over demand or GDP non-compliance particularly during the first rotation period can have ripple effects on delays and reduces network predictability and OTP, as there is limited capacity to recover as the day progresses. This takes into consideration airlines' reliance on the first rotation period for route connectivity and aircraft utilisation.

Figure 21. Available capacity utilisation*, GDP compliance and ground delay, airborne delay, and estimated OTP** throughout the day at major airports (February 2024)



Source: Airservices ODAS (excludes general aviation, cargo, military and medical/mercy flights).

*Available capacity utilisation is the ratio of the planned demand of scheduled flights loaded into the air traffic flow management system 'Harmony' the evening prior to the day of operations against the planned capacity collaboratively agreed with industry stakeholders. The ratio is calculated as an average for the month.

**OTP data from BITRE is not available for February. The OTP presented is an estimate based on data available to Airservices.

Airline Ground Delay Program (GDP) compliance

Ground Delay Program (GDP) compliance continues to lag behind long-term benchmarks, reflecting an industry-wide challenge in balancing demand and capacity particularly at Sydney and Melbourne airports. The challenge is exacerbated by GDP non-compliance, which contributes to airborne delays, further affecting OTP and network predictability. Tightened governance for GDP implementation has been in place and will be monitored and reported on to assess related impacts to OTP and airborne delay.

	Qantas	QantasLink	Jetstar	Virgin	Rex	Alliance	Other	Overall	
Sydney	77%	85%	76%	78%	74%		70%	78% •	
Melbourne	79%	83%	76%	81%	75%		66%	78% ▲	
Brisbane	63%	70%	55%	63%	53%	75%	57%	6 <mark>3</mark> %	
Perth	84%	86%	92%	84%	78%	85%	74%	81% ▲	
All Ports	78% ◆	84% •	76%	80% •	74%	84%	71% •	78% ▼	
Compliance ^{0%}									

Figure 22. GDP compliance in February 2024 and trend over the last 12 months

♦ : Steady trend, ▲ : Positive trend, ▼ : Negative trend. Trend shown for last 12 months.

Source: Airservices ODAS.

A GDP is an agreed industry plan to balance the demand (based on airline schedules) to the available runway capacity that is collaboratively agreed by Airservices, airlines and the Bureau of Meteorology based on weather and other operating constraints (refer to <u>GDP Fact Sheet</u>). GDP compliance represents the proportion of flights into an airport that departed compliant with their assigned GDP slot. GDP slot. GDP typically starts one hour ahead of a period where the number of scheduled flights exceeded the predicted available capacity at an airport.

Runway occupancy time

Significant variations in departure Runway Occupancy Time (ROT) during periods of demand exceeding capacity have been observed, which increase strain on the system. Notably, slower operator line-up procedures involving medium jet aircraft operations at Brisbane Airport and varying runway modes at Melbourne Airport have been identified as potential drivers of longer ROT.



Figure 23. Median and 75th percentile departure and arrival runway occupancy time during periods where tactical demand exceeds available capacity (February 2024) by runway and taxiway at major capital city airports

Source: Airservices ODAS (data for Perth in 2019 are not available, and Brisbane runway 01L/19R opened in 2020).

For departures, the runway occupancy time is calculated from when an aircraft enters the runway area until it is airborne and has left the runway area (overflies threshold at runway end or turned away from runway centreline). For arrivals, the runway occupancy time is calculated from when an aircraft flies over the runway threshold until it has left the runway area after landing.

Air traffic management outcomes

Overall air traffic management outcomes have returned to an improving trend. In February, the service impact due to Airservices' capacity constraints was at its lowest level in ten months. Weather disruptions remain the most significant constraint. While Brisbane Airport has the lowest level of ground delays compared to other major airports, the majority of those were attributable to Airservices due to staff availability challenges. Concentrated efforts, such as optimising rosters and refining traffic management processes, are continuing to minimise the network impact.



Figure 24. Air traffic management outcomes at major airports

Attributable to Airservices Not Attributable to Airservices

Source: Airservices ODAS.

Flights impacted are estimated as scheduled to arrive at the four major airports during a period with slot reduction attributable to Airservices. Ground delay and flight cancellations attributable to Airservices are only estimated for flights arriving at Sydney, Melbourne, Brisbane and Perth Airports, including measuring the flow-on effects into the subsequent hours at the arrival airport. Airservices is working with airlines, airports and stakeholders to refine the estimation method and identify complementary data to better understand causes of delays and cancellations. As part of the actions to address the recommendations from the IATA review (published on <u>Airservices website</u>), the delay attribution and analysis methods are being reviewed in consultation with industry.

Air traffic management service provision

The overall consistency of services in airspace sectors in February continues to improve from the average monthly trend in 2023. All steps are undertaken to minimise variations to published services, and limit those that cannot be avoided to shorter and low traffic periods. Additional layers of resilience and flexibility are being built into air traffic services operating model and business processes to drive further improvement month-on-month. This includes our recruitment program, training system improvements, refining traffic management processes and continual investment in our service culture.



Figure 25. Number of flights and hours during the periods when air traffic services delivered varied from published levels (February 2024)

The current month's comparison with the last 12-month average trend. Legend: • = steady trend 🔺 = increasing trend 🔻 = decreasing trend.

Source: Airservices ODAS. Variations to published services comprise of Temporary Restricted Areas and tower closure periods. During the periods of variations to published services at regional aerodromes, services in adjacent Class G airspace are generally unaffected (e.g. provision of flight, traffic information and safety alerting). Flights are estimated by historic airline, charter, cargo and medical flights that typically operate during the periods of variations to published services. General aviation, military and government flights are excluded.

*When there is a variation to published Surveillance Flight Information Service (SFIS) at Ballina, standard Class G services as regulated by the Civil Aviation Safety Authority (CASA) are still provided by Brisbane Air Traffic Services Centre.

Drone activities

We are seeing an increase in requests (authorisations) to operate in controlled airspace and very strong growth in the number of remote pilot licences, which are now higher than the number of crewed pilot licences. We expect this trend to continue as Australia's drone market is projected to grow significantly over the next twenty years, with total commercial drone flights increasing from around 1.5 million currently to 60 million flights a year by 2043¹.



Source: CASA. ReOCs have an initial validity period of one year followed by three years once renewed. RePLs have a perpetual validity. The ReOC and RePL figures provided are cumulative totals.

Figure 27. Breakdown of automated airspace authorisations last

Source: Airservices' Corporate Integrated Reporting and Risk Information System (CIRRIS). Drone sightings may be reported by pilots, air traffic controllers or the public. The data do not distinguish authorised or approved operations.

Figure 26. Number of reported drone occurrences at Australian civil controlled airports

33550

2024

30840

Conventional

pilots

For more information stakeholder@airservicesaustralia.com

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