

Australian Aviation Network Overview

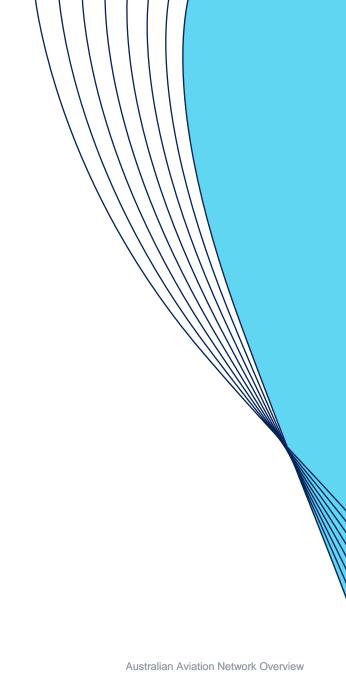
airservices
australia



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.

Report content

1	
Executive Summary	3
2	
Year in review	4
3	
Economic and social trends	5-7
4	
Australian aviation and regional context	8-14
5	
Australian aviation network performance	15-22



Executive Summary

It has been twelve months since we started the journey of delivering the monthly Australian Aviation Network Overview Report to build transparency and confidence in the performance of the aviation network. This June 2024 edition outlines the key network performance drivers for Financial Year 2024 which helps inform ongoing cross-industry efforts to deliver enhanced outcomes for the passengers and communities we serve.

Key highlights for FY2024 include:

- The Australian aviation network recorded 3.7 million aircraft movements tracking along pre-pandemic levels.
- Thursday, 28 March 2024 was the busiest day in terms of daily average flights in the last five years.
- 15 airlines that contribute to roughly a third of flights in the network recorded double-digit growth rates over the last 12 months.
- Traffic patterns continue to evolve and have become highly leisure driven, with an increasing trend to point-to-point services.
- 70 new domestic routes have been added to the network, delivering more direct connectivity to the travelling public.
- Disruptions and volatility remain for the sector, highlighted by the suspension of operations by Bonza and Air Vanuatu.

After performance challenges and significant weather disruptions in the first half of FY2024, overall industry on-time performance and cancellation rates rapidly improved for the remainder of the year. A sharper focus on prioritising the passenger gate-to-gate journey by airports, airlines and service providers is delivering performance benefits and fostering trust in our sector.

Air traffic management service outcomes have seen an overall improving trend in FY2024. Network decisions are increasingly focused on optimising industry outcomes enabled by technology and process improvement. In June 2024, total Ground Delay Program (GDP) hours applied reduced by over 60% compared to the monthly average in the earlier months of the financial year. Ground delay minutes attributable to Airservices were 82% lower than the start of the year equating to an average of less than three minutes per impacted flight. Variations to published airspace services decreased by 44% compared to the previous 12-month average, with impacted flights reduced by 70%.

Notwithstanding these improvements, the consistency of our service has still fallen short of expectations on occasion, as shown in variable service levels in December 2023 and May 2024. Delivering consistent month-on-month improvement to ensure we can effectively serve our customers day in and day out remains our top priority. In this financial year, an additional 50 air traffic controllers have entered into service, with a further 80 expected in FY2025. Building on recent learnings, we are continually refining our training system, staff engagement, rostering and endorsement approach to strengthen service resilience and flexibility.

Year in review

Traffic levels are tracking along pre-pandemic levels, but with uneven patterns of growth



3.7 Million

Movements

+3% FY2023

-6% FY2019



157 Million

Passengers (estimated)

+12% FY2023

-4% FY2019



102%

Domestic flights recovery vs FY2019

70 new

Domestic routes vs FY2019 (monthly average estimate)



93%

International flights recovery vs FY2019

73%

China flights recovery vs FY2019



15

New fleet

14 Narrowbody

1 Widebody

Industry priority on passenger experience is delivering improvements this year

10%

Increase in on-time performance (OTP)

79% FY2024

69%

FY2023

2%

Reduction in cancellation rate

2%

FY2024

4%

FY2023

35%

Reduction in monthly ground delay minutes attributable to Airservices at major airports

4,007

minutes per month in FY2024

6,128

minutes per month over Jan-Jun 2023

42%

Reduction in monthly estimated arrival cancellations attributable to Airservices at major airports

14

per month in FY2024

24

per month over Jan-Jun 2023

44%

Decrease in the number of variations to published airspace services at end of FY2024

28

in June 2024

50

Previous 12-month average

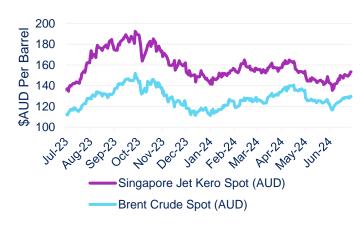


Economic and social trends

Economic factors

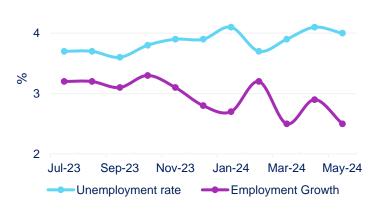
The aviation sector continues to face labour and supply chain challenges and subdued economic growth throughout FY2024. The ongoing cost-of-living pressures are starting to impact leisure and business travel outlook. The increase in capacity in both domestic and international markets has contributed to a decrease in air fares this year. Notwithstanding strong visitors' growth from markets such as New Zealand and Southern Asia, the slower-than-expected recovery from China is affecting the overall international recovery rate.

Figure 1. Jet fuel and Brent crude oil prices (FY 2024)



Source: Bloomberg

Figure 4. Unemployment rate and employment growth (FY 2024 to date)



Source: RBA and ABS (website) – data released 13/6/2024 up to May 2024

Figure 2. Monthly Consumer Price Index (CPI) Indicator (FY2024 to date)



Source: ABS (website) – data released 26/6/2024 up to May 2024

Figure 5. Domestic air fares (best discount)



Source: BITRE (website)

Figure 3. Quarter to quarter GDP growth

15%

10%

5%

0%

-5%

-10%

-15%

Source: RBA (website) - data available 4/7/2024 up to March 2024

Australia

Figure 6. Latest international visitor numbers for top 10 countries and percentage of recovery (April 2024 vs April 2019, above prepandemic growth noted in green)



Source: ABS (website) - data released 14/5/2024 up to April 2024

Social factors

The Senate inquiry into the impact and mitigation of aircraft noise highlights the need for proactive whole-of-industry actions to create a sustainable future for aviation. Investing in quieter, greener technology, disciplined execution of operational plans and cross-industry alignment on necessary trade-offs between emissions and aircraft noise is critical to meet evolving societal expectations.

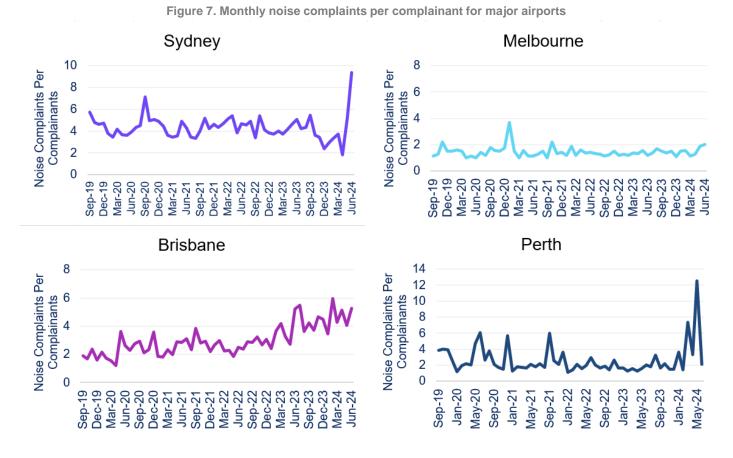


Figure 8. CO2 emissions (FY2024) by total flight distance category

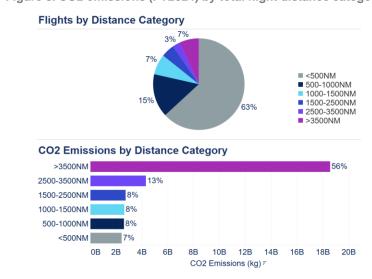
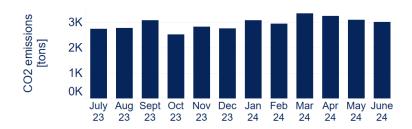


Figure 9. Monthly CO₂ emissions savings from user preferred routes (FY2024)



Source: Airservices Noise Complaints and Information Service (NCIS) and Airservices ODAS.



Australian aviation and regional context

State of Australian aviation growth

In FY2024, the Australian aviation network recorded 1.5 million flights tracking along pre-pandemic levels. After a significant ramp-up in airlines' capacity for the summer holiday season, international traffic has stabilised to the level consistent with our forecast but remains below pre-pandemic levels. While domestic traffic has exceeded pre-pandemic levels, it remains below our forecast due to a slower recovery in business travel.

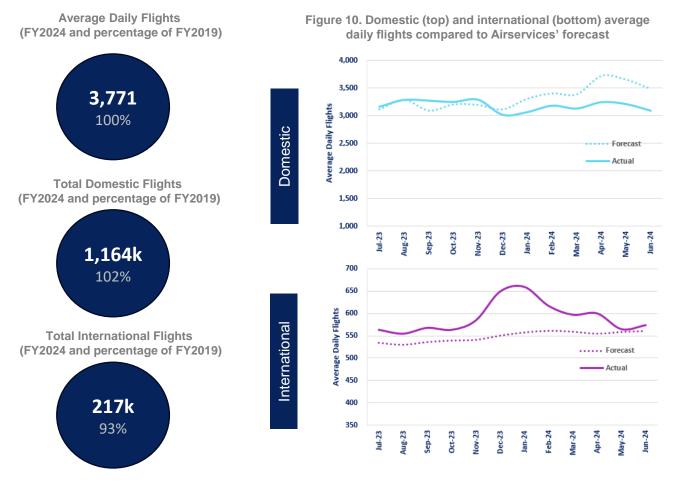
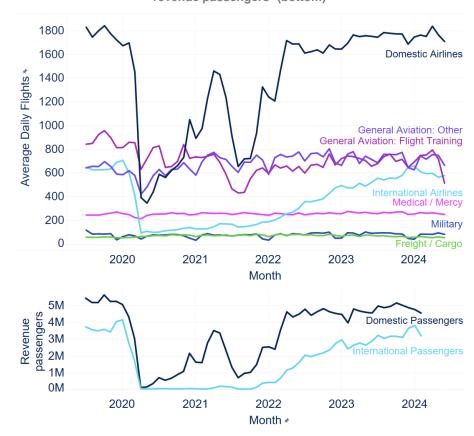


Figure 11. Average daily flights per month by industry segment (top) and monthly revenue passengers* (bottom)

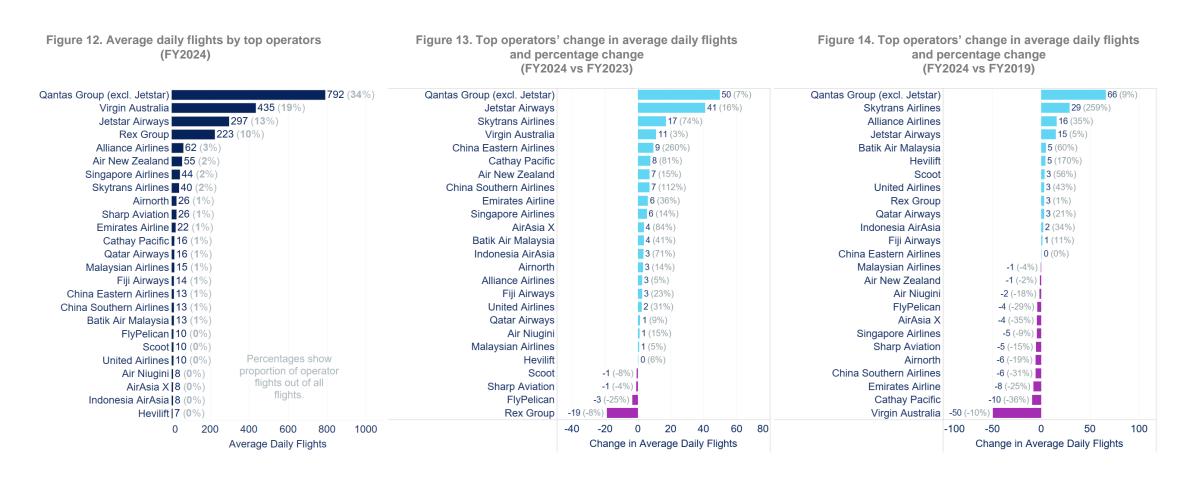


Source: Airservices aeronautical charge database (excludes some general aviation flights that are not subject to Airservices aeronautical charges; Airservices' forecast is as of June 2023).

Source: Airservices ODAS (top) and BITRE (bottom). *Latest passenger data up to February 2024.

Top aircraft operators

15 airlines that contribute to roughly a third of of flights in the network recorded double-digit growth rates over the last 12 months. However, Bonza and Air Vanuatu's suspension of operations highlights the ongoing volatility in our industry.



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

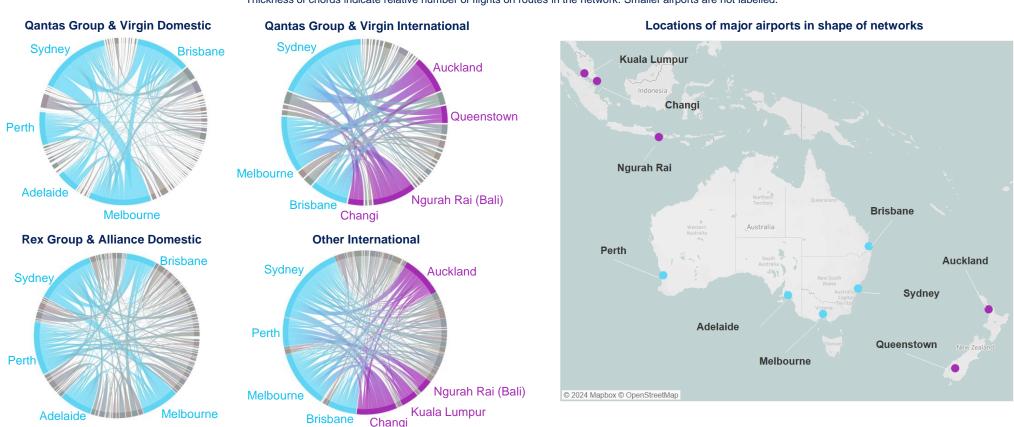
Shape of major airline networks

The top three airline groups contribute to 76% of flights in the Australian aviation network. The shape of their networks is centred around five major airports, with half of their fleet rotating through Sydney daily. These airlines have introduced 20 new routes* in FY2024, consistent with an industry trend of more point-to-point service offerings.

Figure 15. Shape of routes network for major domestic and international operators (FY2024), with major airports highlighted

Major Domestic Capital Airport Major International Airport

Thickness of chords indicate relative number of flights on routes in the network. Smaller airports are not labelled.

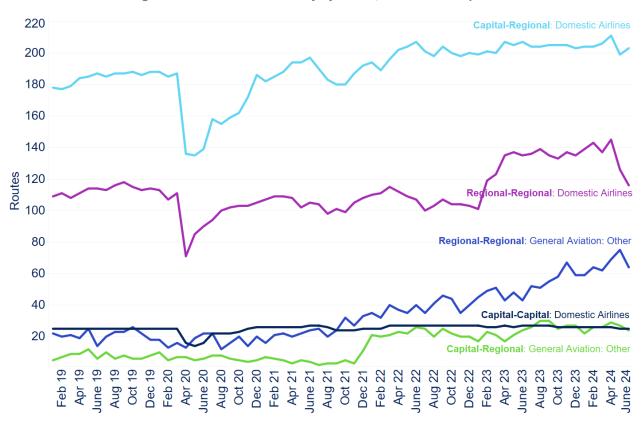


Source: Airservices (excludes military, medical/mercy, training, and return flights). Only routes with at least one operator with at least 2 flights weekly are included in the shape of the network.

Domestic regional network

70 new domestic routes* have been added to the network in FY2024, a 21% increase from pre-pandemic levels driven by mining and tourism in Western Australia, Northern Territory, and Queensland.

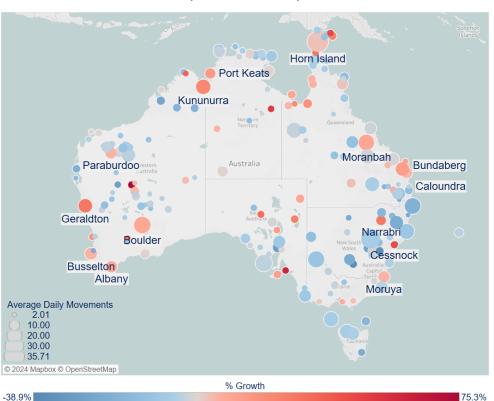
Figure 16. Domestic connectivity by month, in terms of unique routes



Source: Airservices (excludes military, medical/mercy, training, and return flights).

Only routes with at least one operator with at least 2 flights weekly are included – this includes airline and general aviation flights.

Figure 17. Growth in daily average movements at Class G aerodromes (FY2024 vs FY2023)



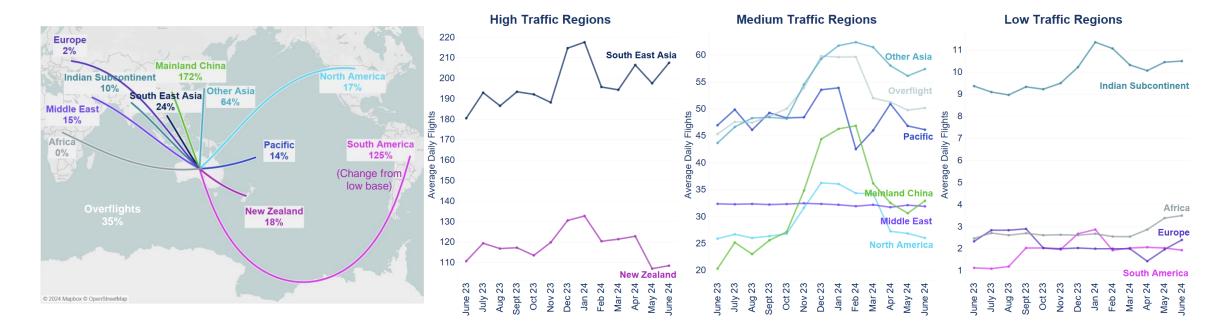
Source: Airservices (excludes military, medical/mercy, training, and return flights). Only airports with at least 2 movements a day are shown.

Traffic flows from international markets

The South East Asia and Other Asia markets have continued to grow due to sustained leisure demand. Growths in other key markets such as New Zealand, Pacific, and North America have plateaued after the peak summer period. China has shown an uptick in growth at the end of FY2024 following a reciprocal visa-free policy, which is expected to boost travel in this market.

Figure 18. Percentage change in total flights by international markets (FY2024 vs FY2023)

Figure 19. Average daily number of flights per month by international markets (FY2024)



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.

Australian fleet

Australian airlines are actively investing in fleet renewal and are expected to bring an additional 30% in seat capacity over the next 10 years. However, the pace of capacity increase has been constrained by aircraft manufacturing/engineering and supply chain challenges throughout this year, as shown in global aircraft deliveries being down 17% compared to plans. Airlines are improving aircraft maintenance and turnaround practices to overcome short-term constraints.

Figure 20. Australia's fleet capacity in seats by aircraft status (as of 1 July 2024)

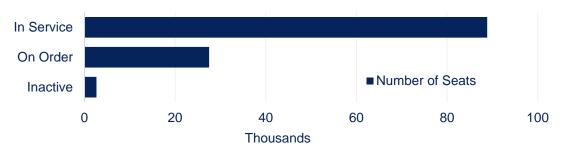


Figure 21. Australia's delivery of aircraft on order (as at 1 July 2024)

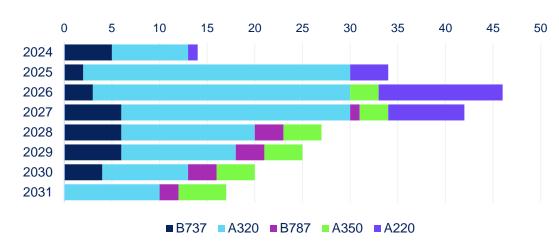
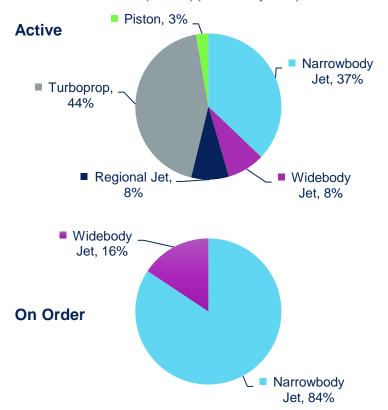


Figure 22. Australia's fleet breakdown by active aircraft (top) and aircraft on order (bottom) (as at 1 July 2024)



Source: Centre for Aviation Fleet (CAPA).



Australian aviation network performance

On-Time Performance (OTP)

Towards the end of the financial year, overall industry OTP and cancellation rates reached their best levels in the last three years. Cross-industry priority on improving the end-to-end passenger journey is demonstrated through building predictability and resilience into schedules and streamlining processes to improve aircraft turnaround times. Sustained improvement efforts are being sought to return our industry performance to the world-leading standard that is expected and that we are known for delivering.

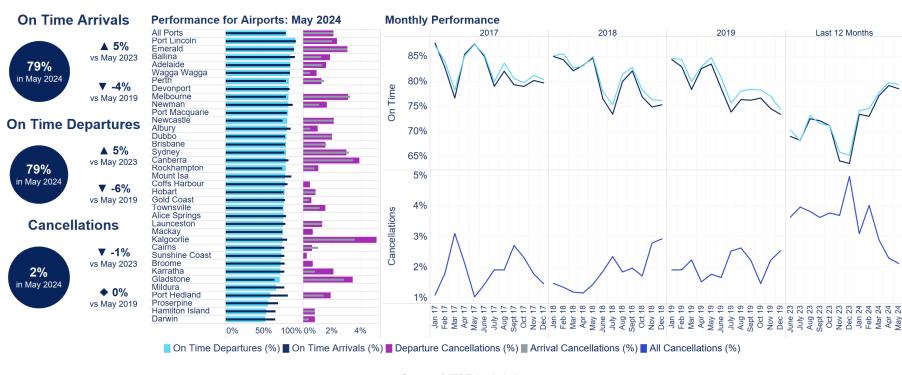


Figure 23. Total industry OTP and cancellations (data available up to 31 May 2024 based on latest BITRE data release)

Figure 24. Average arrival OTP by region, based on the top ten performing airlines (May 2024) for all regions except Australia, with change compared to previous month

Region	On Time Arrivals	Change from previous month
Global	86%	♦0 %
Middle East & Africa	88%	▲ 9%
Latin America	87%	♦ 0%
Europe	84%	▼2%
Asia Pacific	82%	▼1%
Australia	79%	♦0%
North America	74%	▼6%

Source: Cirium (<u>website</u>) and BITRE (for Australia)

– data are one month in arrears

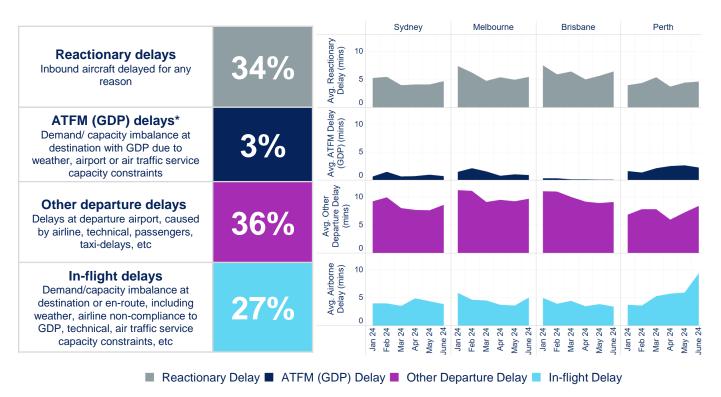
Source: BITRE (website)

Network focus areas for improving OTP

Protecting the first rotation and ensuring adherence to declared capacity to avoid structural demand volatility is critical to network performance. Further industry actions are still required to tackle these areas.

In FY2024, up to 12% of subsequent flights at major airports experienced delays as a direct result of disruptions to the first rotation. At Perth Airport, ground and in-flight delays almost doubled this year, with 70% of ground delays due to the demand in excess of the declared capacity during morning and afternoon peaks. Coupled with relatively lower level of GDP compliance, Perth Airport recorded 19% higher airborne delay (75th percentile) compared to Sydney Airport.



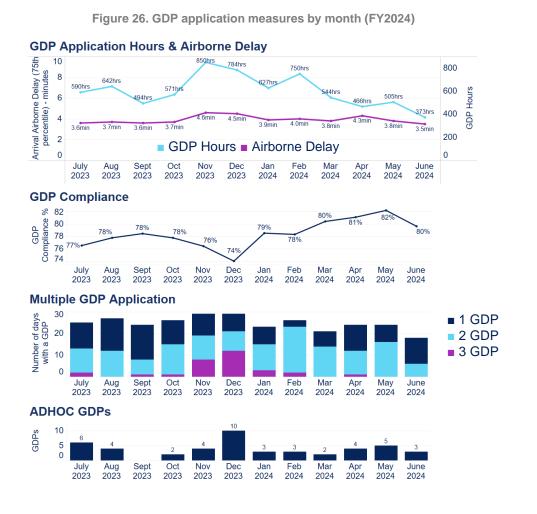


Source: Airservices ODAS (excludes general aviation, cargo, military and medical/mercy flights). The delay presented is an estimate based on domestic flight data available to Airservices for Qantas Group (incl. Jetstar), Virgin Australia, REX, and Bonza in FY2024. Airservices is working with airlines and stakeholders to refine the estimation method and identify complementary data to better understand causal factors.

*The ATFM system allows airlines to change GDP slots to respond to reactionary delays, which may allow a GDP slot to be obtained closer to the updated departure time. Therefore, the additional ground delay as result of a GDP can appear low but should be considered in conjunction with reactionary delay.

Ground Delay Program (GDP) application

Network decisions are increasingly focused on optimising industry outcomes, supported with advanced analytics tool. Total GDP hours applied in June 2024 reduced by over 60% compared to the monthly average in the earlier months of the financial year. While traffic levels are approaching pre-pandemic levels at Sydney and Melbourne, the GDP applications at these airports reduced by a third in FY2024 compared to FY2019. GDP compliance is yet to return to long-term trend, which is critical to avoid excessive airborne delay and support network predictability.



Overall outcome FY2024

ATFM (GDP) delay attributable to weather on the East Coast and excess demand at Perth



ATFM (GDP) delay attributable to **Airservices**



ATFM (GDP) delay attributable to Airport (e.g. airport works)



Figure 27. GDP compliance FY2024, with comparison to FY2023



Change is based on comparison to previous 12 months.

Figure 28. Comparison of measures across three reference periods

	FY 2019	FY 2023	FY 2024
Days with multiple GDPs in place on East Coast	325	103	160
Number of days with GDP in place at Sydney	315	208	200
Number of days with GDP in place at Melbourne	335	135	228
Number of days with GDP in place at Brisbane	313	32	52
Number of days with GDP in place at Perth	166	166	192
GDP compliance	87.5%	78.1%	78.2%
Total ATFM (GDP) delay [minutes]	571,862	378,577	430,166
75 th percentile airborne delay [minutes]	3.8	3.4	3.9

Source: Airservices ODAS

assigned 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.

Air traffic management (ATM) outcomes

There has been on an overall improving trend in ATM outcomes at the major airports that in turn drive the network performance. In June 2024, ground delay minutes attributable to Airservices were 82% lower than the start of the financial year equating to an average of less than three minutes per impacted flight. However, variable performance outcomes in December 2023 and May 2024 underscore the continued focus on strengthening capacity planning and limiting tactical traffic management measures to protect network reliability.

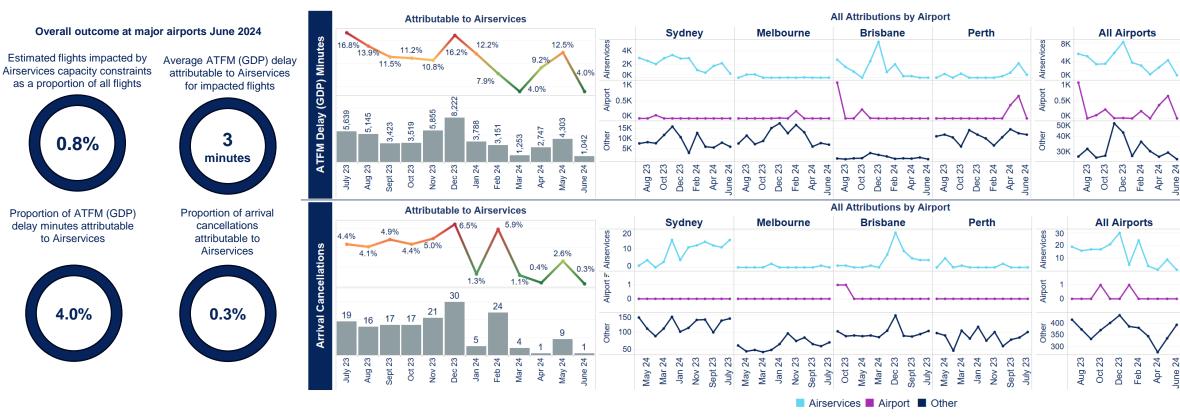


Figure 29. Air traffic management outcomes at major airports

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. ATFM delay (GDP) 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 service provision

In June 2024, variations to published airspace services decreased by 44% compared to the previous 12 month average, with impacted flights reduced by 70%. Despite these improvements, we are still not delivering our services consistently and as expected with much improvement still to come. In FY2024, an additional 50 air traffic controllers have entered into service, with a further 80 expected in FY2025. Building on recent learnings, we are continuing to refine our training system, staff engagement, rostering and endorsement to strengthen service resilience and flexibility.



Figure 30. Number of flights and hours during the periods when air traffic services delivered varied from published levels (June 2024)

		Events	Hours	Flights	Variations to Published Services Air Traffic Control Towers: Jun 2024
Parafield	ERSA	21	40.3		
	ERSA	30	45	118	
Gold Coast	During CASA Approved Hours	19	28.5	74	
Archerfield	ERSA	10	7.5		Karratha Alice Springs
Essendon	ERSA	2	3.3		Watern Autoria
Camden	ERSA	1	0.8		Archerfield Gold Coast
Mackay	ERSA	1	2.3	2	Acceptance of the Control of the Con
Karratha	ERSA	2	3.1	6	Essendon
Albury	ERSA	42	144.3	152	Parafield
Alice Springs	ERSA	6	44.7	36	Avalon
Avalon	ERSA	90	212.5	36	Flights
All (ER	SA)	205 ▲ 68%	504 ▲ 25%	350 ▼-3%	0 200 © 2024 Mapbox © OpenStreetMap

♦ No change ▲ Increase ▼ Decrease Change is based on comparison to the previous 12-month average.

Source: Airservices ODAS. Variations to published services comprise of Temporary Restricted Areas and tower closure periods, with respect to published services as per En Route Supplement Australia (ERSA). At Gold Coast variations against the CASA approved temporary arrangement for reduced hours of coverage are also shown. 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 approximations by historic airline, charter, cargo and medical flights that typically operate during the periods of variations to published services, noting the exact reasons for flight impacts cannot be directly inferred from information on flight times or tracks. General aviation, military and government flights are excluded. Airservices is working with airlines to refine the estimation method to better understand the impact of variations to published services.

^{*}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.

Runway Occupancy Time

Longer runway occupancy time is correlated with the use of runway crossing modes especially at Melbourne and Perth Airport due to increased operational complexity where arrivals and departures use different runways simultaneously. The data results are shared with relevant airlines and airport performance working groups to address causal factors and seek improved runway throughput safely.



Figure 31. Medium and heavy jet departure and arrival runway occupancy times (5th to 75th percentile) during peak periods (FY2024) by runway, taxiway, and aircraft type at major capital-city airports

Source: Airservices ODAS (Brisbane runway 01L/19R opened in 2020). Only groups with at least 1% of flights are shown.

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.

● Percentile (5) of ROT ▲ Percentile (75) of ROT

Drone activities

While the overall number of drone flights in Australia has remained steady between FY2023 and FY2024, drone traffic has increased at all major capital-city airports. Activity types are shifting from predominantly hobby to more commercial applications, such as mapping and infrastructure inspections. We are continuing to develop data sharing and network management capabilities for the safe and efficient integration of drone operations.

Figure 32. Number of flights and unique drones in FY2024 at major capital-city airports (percentage comparisons vs FY2023) +4.6% Individual flights Unique drones 20,000 +10.8% +7.8% 15.000 +21.7% +34.1% 10,000 5,000 +15.2% +9.7% +5.4% +14.6% +16.2% 0 -Sydney Adelaide Brisbane Melbourne Perth Location New Remote Pilot Licences Busiest month of operations, Increase in commercial Sep since 1 January 2024 with 5,138 unique drones 2,435 3.3% operations from FY2023 to (7.5% increase from 2023 operating near civil controlled FY2024 December 2023) airports

Source: Airservices Corporate Integrated Reporting and Risk Information System (CIRRIS) and drone detection equipment.

Drone detection data is limited to drone activity detected by drone surveillance equipment installed at 29 controlled civil aerodromes. The Civil Aviation Safety Authority (CASA) can approve operations within the 3 nautical mile (5.5 kilometre) boundary and in the approach/departure paths of a controlled aerodrome (known as the no fly zone). Micro drones (<250 g) are allowed to operate within 5.5 kilometres of a controlled airport consistent with the requirements of the Civil Aviation Safety Regulations Part 101 Manual of Standards (outside the approach/departure splays). All drones are allowed to operate in the outer runway splays of a controlled airport up to a height of 90 metres.

Figure 33. Change in drone operations and activity type near civil controlled airports (FY2024 vs FY2023)

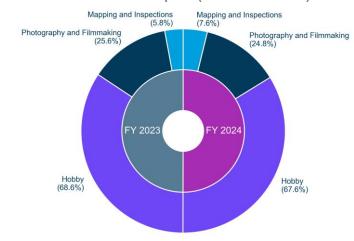
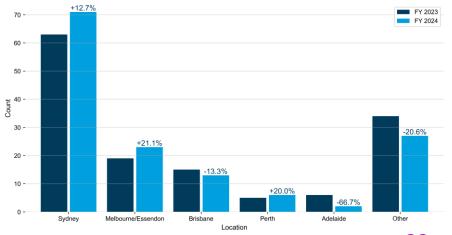


Figure 34. Number of reported drone sightings near civil controlled airports (FY2024 vs FY2023)







www.airservicesaustralia.com